### Contention 1– Deregulation

#### Trump has set out the start of his term with promises of shrinking the government

Anderson 25 [Veteran financial services industry journalist Brian Anderson joined 401(k) Specialist as Managing Editor in January 2019. He is currently the Editor-in-Chief. He has led editorial content for a variety of well-known properties including Insurance Forums and Senior Market Advisor. He holds a Bachelor of Science (BS) from The University of Wyoming in Journalism – “Trump Executive Order Means Any New DOL Regulation Requires Elimination of 10 Existing Ones” – 401K Specialist – 2-3-2025 - https://401kspecialistmag.com/trump-executive-order-means-any-new-dol-regulation-requires-elimination-of-10-existing-ones/]

Trump Executive Order Means Any New DOL Regulation Requires Elimination of 10 Existing Ones Trump’s “Unleashing Prosperity through Deregulation” executive order calls for any federal agency promulgating a new rule, regulation, or guidance to identify at least 10 existing ones to be repealed Despite the change in presidential administrations with vastly different viewpoints and philosophies in how to govern the United States, do not expect to see a flurry of new regulations being promulgated by the Department of Labor or its Employee Benefits Security Administration during the next four years. Or if there is, expect to see dozens of existing regulations being vacated. The reason? Under a new Executive Order signed by President Donald Trump on Jan. 31, 2025, intended to “unleash prosperity through deregulation,” whenever a federal agency such as the DOL promulgates a new rule, regulation, or guidance, it must identify at least 10 existing rules, regulations, or guidance documents to be repealed.

#### And, this executive order mandates that for the size of the affirmative – massive amounts of deregulation would have to follow

Holland & Knight 25 [Holland & Knight, “Executive Order Trump Launches Massive 10-1 Deregulation Initiative,” 1-31-2025, https://www.hklaw.com/en/insights/publications/2025/01/executive-order-trump-launches-massive-10-1-deregulation-initiative

This executive order establishes that the director of the Office of Management and Budget (OMB) will ensure that for every new rule, regulation or guidance issued, that agency must identify at least 10 existing rules, regulations or guidance documents to be repealed. This initiative builds upon the directive during President Trump's first term, which required two existing rules, regulations or guidance documents to be repealed for every new rule, regulation or guidance issued. Furthermore, this order requires that, for the fiscal year 2025, the total incremental cost of new regulations, including repealed, be significantly less than zero. Policy Actions Any new rule, regulation or guidance an agency implements requires them to identify at least 10 to be repealed, enforced by the director of the OMB. The total incremental cost of all new regulations, including repealed ones, must be significantly less than zero in the fiscal year 2025.

#### And, the Congressional Review Act means rollback candidates come from this narrow list---including transmission regulations on the grid

Crews 24 [Clyde Wayne Crews Jr. - Fred L. Smith Jr. Fellow at the Competitive Enterprise Institute. “Regulations To Overturn Quickly In The 119th Congress” – Forbes - Updated Dec 29, 2024, 01:21pm EST - https://www.forbes.com/sites/waynecrews/2024/12/29/an-inventory-of-biden-regulations-to-overturn-quickly-in-the-119th-congress/]

The incoming Trump administration and 119th Congress are poised to hammer out resolutions of disapproval aimed at rescinding costly Biden regulations issued within the final 60 legislative days of the 118th Congress. The Congressional Review Act (or CRA) of 1996 is the shiny tool making that possible. The CRA lay rusting for nearly two decades before springing to life during Trump’s first term, eliminating over a dozen Obama-era rules. Although this article lays out the targets, we require a sense of proportion with respect culling the whole of the Biden agenda. While the CRA can eliminate rules dating back to roughly August, this pales compared to the more than 3,000 rules published annually. The CRA can reinforce the broader Trump and DOGE (Department of Government Efficiency) cause of terminating departments and agencies, privatizing and devolving powers to states — but it is no substitute. However, those ambitions have yet to gain traction, even amid debt ceiling standoffs and government shutdowns. A Biden Surge in Major Rules But let’s look at the impact the CRA can have. Among thousands of rules issued annually (there are 3233 in 2024, with a federal workday still to go) are those the CRA defines as major — typically meaning $100 million in annual economic effects. Of course, rules need not be officially deemed major to feel that way to some, such as small business and state and local governments. A breaking development of particular import to the incoming Congress is that the twice-yearly Unified Agenda of Regulatory and Deregulatory Actions has now exposed a surge in the “recently completed” category of such major rules during 2024. These jumped to 146 in the combined Spring/Fall Agendas, compared to 91 in 2023, as shown below. Biden’s election-year efforts at Trump-proofing his legacy help explain this, especially the abnormal 97-rule surge in Spring 2024. Among those were: several more household energy conservation standards; regulation of prescription drug advertisements to consumers; independent contractor classification; vehicle-to-vehicle communication protocols; drinking water contamination standards; credit card late-fees; and fuel economy standards forcing adoption of electric vehicles. These and more appear in the Appendix below. Alas, these costly rules are likely “safe” in terms of the CRA’s 60-day window, so court challenges, plus incoming Trump administration laborious rewrites will be the cumbersome avenues to address them. A Glide Path Of Sorts The December 13 release of the Fall Unified Agenda provides Congress with fresh CRA-vulnerable targets. Three weeks remain for Biden to issue more rules, knowing not everything will get axed when overloading the system. That’s a reason for Rep. Andy Biggs’ (R-Arizona) Midnight Rules Relief Act, which offers a potential solution by enabling bulk repeals instead of the current rule-by-rule process. This article outlines and inventories CRA targets to complement Trump’s announced campaigns such as a “one-in, ten-out” policy for significant new rulemakings, accelerated permitting, cryptocurrency legitimization and of course — drilling, baby, drilling. Navigating Active and Long-term Rules: Work-in-process rules are deemed “active” in the Unified Agenda. These pre-rule, proposed and final rulemakings can be frozen temporarily or stricken altogether, which is common when administrations change. The Fall Agenda snapshots 2,233 active rules, of which 137 are major, and another 698 otherwise "significant." Meanwhile the Federal Register reveals 1,761 proposed rules, 174 of them deemed “significant.” This pause is important since hefty new Biden administration proposals are capable offsetting regulatory savings garnered in the coming months if civil-service induced strategic hibernation is allowed. Biden would often taunt the GOP, confident it will retain — Obamacare-style — and sometimes even vote for, interventions like credit card rate regulation, certain drug-price regulation, remote disabling of vehicles in the name of impaired driving, cutting nicotine, banning dry cleaning chemicals and implementing Airline Passenger Rights to name a few. Rules designated “long-term” in the Agenda should be monitored closely too, since at times some have been finalized in a subsequent Agenda. There were 42 long-term major rules in the Spring Agenda; these now stand at 77 (also listed here). This sizeable jump likely happened because rules a second Biden term might have fast-tracked would now be vulnerable if issued. Tackling Completed Rules: As noted, safe rules need a court challenge or a cumbersome rewrite, but some majors from the Spring Agenda should still be vulnerable. But any Biden rules completed from now on are vulnerable to overturn as are most of the 49 Fall Agenda major rules in the chart above, plus hundreds of others not deemed major that fall within the CRA window. Finalized rules can also be monitored in the daily Federal Register, with perhaps special attention to the “significant” subset. Among the 49 major rules in the Fall Agenda we find: yet more energy conservation standards; an automatic emergency-braking rule for vehicles; additional vehicle fuel-economy rulemaking; regulation of customer reviews on websites; a rule on methane-release charges; and a "Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection" rule. For ease of reference, at the end of this article I’ve compiled a comprehensive list of all of the 146 completed major rules from the 2024 Agendas. The 97 rules from the Spring Agenda should be safe, depending upon the 60-day window. The George Washington University Regulatory Studies Center’s Congressional Review Act Window Exploratory Dashboard, allows users to examine the populations of rules eligible for overturn in 2025. Note again that these rules in the Appendix are ones deemed major by agencies and/or the White House Office of Management and Budget, but non-major rules are also potentially subject to the CRA. Another Bite At The Apple Lawmakers shouldn't necessarily view controversial major rules completed prior to the 60 day window as untouchable. Apart from the legal challenges and rewrites, the CRA stipulates that for any rule to be considered effective, agencies must submit the rule to the Government Accountability Office and to both chambers of Congress. Additionally, major rules require specific reports by GAO, which it archives. Historically, rules sometimes fail to get properly submitted, and not all major rules are accompanied by reports. Failure to perform these steps may constitute grounds for challenging certain rules’ validity, if Trump and Congress press the issue. Onward While the CRA provides a critical mechanism for regulatory rollbacks, it is no panacea. Most eligible rules will remain intact, underscoring the need for additional tools, oversight, and structural reforms including terminations of agencies and programs. One foundational step would be shifting from CRA-style disapproval to mandatory congressional approval for all significant or controversial rules. Another would be extension of the work on preventing the laundering of regulation through gudance douments and policy statements, an issue addressed in the past by one-time and incoming Office of Management and Budget Director Russell Vought. Trump, Congress and DOGE have a full plate. APPENDIX: Inventory of 146 CSpring/Fall 2024 Completed Major Actions SPRING 2024: 97 COMPLETED MAJOR ACTIONS (79 are “Section 3(f)1 Significant” under Biden’s Modernizing Regulatory Review, E.O. 14,094) DEPARTMENT OF AGRICULTURE 1. USDA/AgSEC, Partnerships with Faith-Based and Neighborhood Organizations, 0503-AA73 2. USDA/APHIS, AQI User Fees, 0579-AE71 3. USDA/FNS, Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages, 0584-AE82 4. USDA/FNS, Child Nutrition Programs: Meal Patterns Consistent With the 2020-2025 Dietary Guidelines for Americans, 0584-AE88 DEPARTMENT OF COMMERCE 5. DOC/NIST, Preventing the Improper Use of CHIPS Act Funding, 0693-AB70 DEPARTMENT OF EDUCATION 6. ED/OPE, Improving use of Deferments and Forbearances, 1840-AD88 DEPARTMENT OF ENERGY 7. DOE/EE, Energy Conservation Standards for Residential Non-Weatherized Gas Furnaces and Mobile Home Gas Furnaces, 1904-AD20 8. DOE/EE, Energy Conservation Standards for Consumer Clothes Washers, 1904-AD98 9. DOE/EE, Energy Conservation Standards for Clothes Dryers, 1904-AD99 10. DOE/EE, Energy Conservation Standards for Dishwashers, 1904-AE32 11. DOE/EE, Energy Conservation Standards for Miscellaneous Residential Refrigeration, 1904-AF00 12. DOE/EE, Energy Conservation Program: Energy Conservation Standards for General Service Lamps, 1904-AF43 13. DOE/EE, Energy Conservation Standards for Consumer Refrigerators, Freezers, and Refrigerator-Freezers, 1904-AF56 14. DOE/EE, Energy Conservation Standards for Consumer Conventional Cooking Products, 1904-AF57 15. DOE/EE, Determination of Energy Savings for Commercial Buildings based on ANSI/ASHRAE/IES Standard 90.1-2022, 1904-AF52 16. DOE/EE, Petroleum-Equivalent Fuel Economy Calculation, 1904-AF47 DEPARTMENT OF HEALTH AND HUMAN SERVICES 17. HHS/FDA, Direct-to-Consumer Prescription Drug Advertisements: Presentation of the Major Statement in a Clear, Conspicuous, Neutral Manner in Advertisements in Television and Radio Format, 0910-AG27 18. HHS/FDA, Medical Devices; Quality System Regulation Amendments, 0910-AH99 19. HHS/FDA, Medical Devices; Laboratory Developed Tests, 0910-AI85 20. HHS/SAMHSA, Medications for the Treatment of Opioid Use Disorder, 0930-AA39 21. HHS/CMS, Streamlining the Medicaid, CHIP, and BHP Application, Eligibility Determination, Enrollment, and Renewal Processes (CMS-2421), 0938-AU00 22. HHS/CMS, Ensuring Access to Medicaid Services (CMS-2442), 0938-AU68 23. HHS/CMS, Interoperability and Prior Authorization for MA Organizations, Medicaid and CHIP Managed Care and State Agencies, FFE QHP Issuers, MIPS Eligible Clinicians, Eligible Hospitals and CAHs (CMS-0057), 0938-AU87 24. HHS/CMS, Medicaid and Children's Health Insurance Program (CHIP) Managed Care Access, Finance, and Quality (CMS-2439), 0938-AU99 25. HHS/CMS, Disproportionate Share Hospital (DSH) Third Party Payer (CMS-2445), 0938-AV00 26. HHS/CMS, CY 2024 Revisions to Payment Policies Under the Physician Fee Schedule and Other Revisions to Medicare Part B (CMS-1784), 0938-AV07 27. HHS/CMS, CY 2024 Hospital Outpatient PPS Policy Changes and Payment Rates and Ambulatory Surgical Center Payment System Policy Changes and Payment Rates (CMS-1786), 0938-AV09 28. HHS/CMS, HHS Notice of Benefit and Payment Parameters for 2025 (CMS-9895), 0938-AV22 29. HHS/CMS, Contract Year 2025 Policy and Technical Changes to the Medicare Advantage, Medicare Prescription Drug Benefit, and Medicare Cost Plan Programs, and PACE (CMS-4205), 0938-AV24 30. HHS/CMS, Minimum Staffing Standards for Long-Term Care Facilities and Medicaid Institutional Payment Transparency Reporting (CMS-3442), 0938-AV25 31. HHS/CMS, Federal Independent Dispute Resolution Process Fees (CMS-9890), 0938-AV39 32. HHS/OCR, Rulemaking on Discrimination on the Basis of Disability in Health and Human Services Programs or Activities, 0945-AA15 33. HHS/OCR, Nondiscrimination in Health Programs and Activities, 0945-AA17 34. HHS/OCR, Safeguarding the Rights of Conscience as Protected by Federal Statutes, 0945-AA18 35. HHS/OCR, Proposed Modifications to the HIPAA Privacy Rule to Support Reproductive Health Care Privacy, 0945-AA20 36. HHS/ONC, Health Data, Technology, and Interoperability: Certification Program Updates, Algorithm Transparency, and Information Sharing, 0955-AA03 37. HHS/ACF, Foster Care Legal Representation, 0970-AC89 38. HHS/ACF, Unaccompanied Children Program Foundational Rule, 0970-AC93 39. HHS/ACF, Improving Child Care Access, Affordability, and Stability in the Child Care and Development Fund (CCDF), 0970-AD02 DEPARTMENT OF HOMELAND SECURITY 40. DHS/OS, Partnerships with Faith-Based and Neighborhood Organizations, 1601-AB02 41. DHS/USCIS, U.S. Citizenship and Immigration Services Fee Schedule and Changes to Certain Other Immigration Benefit Request Requirements, 1615-AC68 42. DHS/USCIS, Exercise of Time-Limited Authority to Increase the Numerical Limitation for FY 2023 for the H-2B Temporary Nonagricultural Worker Program and Portability Flexibility for H-2B Workers Seeking to Change, 1615-AC82 43. DHS/USCIS, Exercise of Time-Limited Authority to Increase the Numerical Limitation for FY 2024 for the H-2B Temporary Nonagricultural Worker Program and Portability Flexibility for H-2B Workers, 1615-AC89 DEPARTMENT OF THE INTERIOR 44. DOI/BLM, Rights-of-Way, Leasing and Operations for Renewable Energy, 1004-AE78 45. DOI/BLM, Fluid Mineral Leases and Leasing Process, 1004-AE80 46. DOI/BOEM, Renewable Energy Modernization Rule, 1010-AE04 47. DOI/BOEM, Risk Management and Financial Assurance for OCS Lease and Grant Obligations, 1010-AE14 DEPARTMENT OF JUSTICE 48. DOJ/CRT, Nondiscrimination on the Basis of Disability: Accessibility of Web Information and Services of State and Local Government Entities, 1190-AA79 DEPARTMENT OF LABOR 49. DOL/EBSA, Retirement Security Rule: Definition of an Investment Advice Fiduciary, 1210-AC02 50. DOL/EBSA, Definition of 'Employer' Under Section 3(5) of ERISA-Association Health Plans, 1210-AC16 51. DOL/EBSA, Federal Independent Dispute Resolution (IDR) Process Administrative Fee and Certified IDR Entity Fee Ranges, 1210-AC24 52. DOL/MSHA, Respirable Crystalline Silica, 1219-AB36 53. DOL/WHD, Nondisplacement of Qualified Workers Under Service Contracts, 1235-AA42 54. DOL/WHD, Employee or Independent Contractor Classification Under the Fair Labor Standards Act, 1235-AA43 DEPARTMENT OF TRANSPORTATION 55. DOT/NHTSA, Federal Motor Vehicle Safety Standard (FMVSS) 150 - Vehicle to Vehicle (V2V) Communication, 2127-AL55 DEPARTMENT OF THE TREASURY 56. TREAS/FINCEN, Beneficial Ownership Information Access and Safeguards, 1506-AB59 57. TREAS/OCC, Community Reinvestment Act Regulations, 1557-AF15 DEPARTMENT OF VETERANS AFFAIRS 58. Schedule for Rating Disabilities: The Digestive System, 2900-AQ90 59. Update and Clarify Regulatory Bars to Benefits Based on Character of Discharge, 2900-AQ95 60. Reevaluation of Claims for Dependency and Indemnity Compensation Based on Public Law 117-168, 2900-AR76 ENVIRONMENTAL PROTECTION AGENCY 61. EPA/OW, Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 2040-AG23 62. EPA/OW, PFAS National Primary Drinking Water Regulation Rulemaking, 2040-AG18 63. EPA/OLEM, Accidental Release Prevention Requirements: Risk Management Program Under the Clean Air Act; Safer Communities by Chemical Accident Prevention, 2050-AH22 64. EPA/OLEM, Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy Surface Impoundments, 2050-AH14 65. EPA/OLEM, Designating Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances, 2050-AH09 66. EPA/OAR, National Emission Standards for Hazardous Air Pollutants: Gasoline Distribution Technology Reviews and New Source Performance Standards Review for Bulk Gasoline Terminals, 2060-AU97 67. EPA/OAR, NSPS for GHG Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired EGUs; Emission Guidelines for GHG Emissions from Existing Fossil Fuel-Fired EGUs; and Repeal of the ACE Rule, 2060-AV09 68. EPA/OAR, Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 2060-AV16 69. EPA/OAR, Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, 2060-AV49 70. EPA/OAR, Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles—Phase 3, 2060-AV50 71. EPA/OAR, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review, 2060-AV53 72. EPA/OAR, NSPS for the Synthetic Organic Chemical Manufacturing Industry and NESHAP for the Synthetic Organic Chemical Manufacturing Industry and Group I & II Polymers and Resins Industry, 2060-AV71 73. EPA/OCSPP, Methylene Chloride; Regulation Under the Toxic Substances Control Act (TSCA), 2070-AK70 74. EPA/OCSPP, Asbestos Part 1; Chrysotile Asbestos; Regulation of Certain Conditions of Use Under the Toxic Substances Control Act (TSCA); Correction, 2070-AK86 CONSUMER FINANCIAL PROTECTION BUREAU 75. Credit Card Penalty Fees, 3170-AB15 COUNCIL ON ENVIRONMENTAL QUALITY 76. National Environmental Policy Act Implementing Regulations Revisions Phase 2, 0331-AA07 EQUAL OPPORTUNITY EMPLOYMENT COMMISSION 77. Regulations to Implement the Pregnant Workers Fairness Act, 3046-AB30 PENSION BENEFIT GUARANTY CORPORATION 78. Community Reinvestment Act, 3064-AF81 79. Special Assessments Pursuant to Systemic Risk Determination, 3064-AF93 FEDERAL ENERGY REGULATORY COMMISSION 80. Improvements to Generator Interconnection Procedures and Agreements, 1902-AG00 FEDERAL HOUSING FINANCE AGENCY 81. Enterprise Regulatory Capital Framework–Commingled Securities, Multifamily Government Subsidy, Derivatives, and Other Enhancements, 2590-AB27 82. Fair Lending, Fair Housing, and Equitable Housing Finance Plans, 2590-AB29 83. Exception to Restrictions on Private Transfer Fee Covenants for Loans Meeting Certain Duty to Serve Shared Equity Loan Program Requirements, 2590-AB30 NUCLEAR REGULATORY COMMISSION 84. Revision of Fee Schedules: Fee Recovery for Fiscal Year 2024 [NRC-2022-0046], 3150-AK74 OFFICE OF PERSONNEL MANAGEMENT 85. Prescription Drug and Health Care Spending, 3206-AO27 86. Postal Service Reform Act; Establishment of the Postal Service Health Benefits Program, 3206-AO43 SECURITIES AND EXCHANGE COMMISSION 87. Prohibition Against Conflicts of Interest in Certain Securitizations, 3235-AL04 88. The Enhancement and Standardization of Climate-Related Disclosures for Investors, 3235-AM87 89. Special Purpose Acquisition Companies, Shell Companies, and Projections, 3235-AM90 90. Regulation S P: Privacy of Consumer Financial Information and Safeguarding Customer Information, 3235-AN26 91. Standards for Covered Clearing Agencies for U.S. Treasury Securities and Application of the Broker-Dealer Customer Protection Rule with Respect to U.S. Treasury Securities, 3235-AN09 92. Further Definition of "As Part of a Regular Business" in the Definition of Dealer and Government Securities Dealer in Connection with Certain Liquidity Providers, 3235-AN10 93. Disclosure of Order Execution Information, 3235-AN22 SOCIAL SECURITY ADMINSTRATION 94. Omitting Food from In-Kind Support and Maintenance Calculations, 0960-AI60 95. Expand the Definition of a Public Assistance (PA) Household, 0960-AI81 96. Nationwide Expansion of the Rental Subsidy Policy for SSI Recipients, 0960-AI82 97. Intermediate Improvement to the Disability Adjudication Process, Including How we Consider Past Work, 0960-AI83 FALL 2024: 49 COMPLETED MAJOR ACTIONS (37 are “Section 3(f)1 Significant” under Biden’s Modernizing Regulatory Review, E.O. 14,094) DEPARTMENT OF AGRICULTURE 98. USDA/FNS, SNAP: Employment and Training Program Monitoring, Oversight and Reporting Measures, 0584-AE33 99. USDA/FNS, Supplemental Nutrition Assistance Program: Standard Utility Allowances Based on the Receipt of Energy Assistance Payments, 0584-AE43 100. USDA/FNS, Supplemental Nutrition Assistance Program (SNAP): Standardization of State Heating and Cooling Standard Utility Allowances, 0584-AE69 DEPARTMENT OF COMMERCE 101. DOC/ITA, Procedures Covering Suspension of Liquidation, Duties and Estimated Duties in Accord With Presidential Proclamation 10414, 0625-AB21 102. DOC/PTO, Setting and Adjusting Trademark Fees During Fiscal Year 2025, 0651-AD65 DEPARTMENT OF DEFENSE 103. DOD/DARC, Architect and Engineering Service Fees (DFARS Case 2024-D019), 0750-AM16 104. DOD/OS, Cybersecurity Maturity Model Certification (CMMC) Program, 0790-AL49 DEPARTMENT OF ENERGY 105. DOE/ENDEP, Statutory Updates to the Advanced Technology Vehicles Manufacturing Incentive Program, 1901-AB60 106. DOE/EE, Energy Conservation Standards for Circulator Pumps, 1904-AD61 107. DOE/EE, Energy Conservation Standards for Distribution Transformers, 1904-AE12 108. DOE/EE, Energy Conservation Standards for Air-Cooled Commercial Unitary Air Conditioners and Heat Pumps, 1904-AF34 109. DOE/EE, Energy Conservation Standards for Residential Clothes Washers, 1904-AF58 110. DOE/EE, Energy Conservation Standards for Consumer Clothes Dryers, 1904-AF59 111. DOE/EE, Energy Conservation Standards for Dishwashers, 1904-AF60 112. DOE/EE, Energy Conservation Standards for Miscellaneous Refrigeration Products, 1904-AF62 113. DOE/EE, Clean Energy for New Federal Buildings and Major Renovations of Federal Buildings, 1904-AB96 DEPARTMENT OF HEALTH AND HUMAN SERVICES 114. HHS/CMS, Misclassification of Drugs, Program Administration and Program Integrity Updates Under the Medicaid Drug Rebate Program (CMS-2434), 0938-AU28 115. HHS/CMS, Mental Health Parity and Addiction Equity Act and the Consolidated Appropriations Act, 2021 (CMS-9902), 0938-AU93 116. HHS/CMS, CY 2025 Changes to the End-Stage Renal Disease (ESRD) Prospective Payment System and Quality Incentive Program (CMS-1805), 0938-AV27 117. HHS/CMS, CY 2025 Home Health Prospective Payment System Rate Update and Home Infusion Therapy and Home IVIG Services Payment Update (CMS-1803), 0938-AV28 118. HHS/CMS, FY 2025 Hospice Wage Index, Payment Rate Update, and Quality Reporting Requirements (CMS-1810), 0938-AV29 119. HHS/CMS, FY 2025 Skilled Nursing Facility (SNFs) Prospective Payment System and Consolidated Billing and Updates to the Value-Based Purchasing and Quality Reporting Programs (CMS-1802), 0938-AV30 120. HHS/CMS, FY 2025 Inpatient Rehabilitation Facility (IRF) Prospective Payment System Rate Update and Quality Reporting Program (CMS-1804), 0938-AV31 121. HHS/CMS, CY 2025 Revisions to Payment Policies Under the Physician Fee Schedule and Other Revisions to Medicare Part B (CMS-1807), 0938-AV33 122. HHS/CMS, CY 2025 Hospital Outpatient PPS Policy Changes and Payment Rates and Ambulatory Surgical Center Payment System Policy Changes and Payment Rates (CMS-1809), 0938-AV35 123. HHS/ACF, Supporting the Head Start Workforce and Other Quality Improvements, 0970-AD01 124. HHS/ACF, Increase Flexibility for Tribes in Child Care and Development Fund (CCDF) Eligibility, 0970-AD11 DEPARTMENT OF THE INTERIOR 125. DOI/FWS, Migratory Bird Hunting; 2024–25 Migratory Game Bird Hunting Regulations, 1018-BG63 DEPARTMENT OF LABOR 126. DOL/EBSA, Mental Health Parity and Addiction Equity Act and the Consolidated Appropriations Act, 2021, 1210-AC11 127. DOL/OSHA, COVID-19 Vaccination and Testing Emergency Temporary Standard Rulemaking, 1218-AD42 DEPARTMENT OF TRANSPORTATION 128. DOT/FAA, Applying the Flight, Duty, and Rest Requirements to Ferry Flights That Follow Commuter or On-Demand Operations (FAA Reauthorization), 2120-AK26 129. DOT/NHTSA, Light Vehicle Automatic Emergency Braking (AEB) with Pedestrian AEB, 2127-AM37 130. DOT/NHTSA, Light Vehicle CAFE Standards Beyond MY 2026, 2127-AM55 DEPARTMENT OF THE TREASURY 131. TREAS/DO, NOTICE OF BENEFIT AND PAYMENT PARAMETERS FOR 2025, 1505-AC87 132. TREAS/FINCEN, Anti-Money Laundering/Countering the Financing of Terrorism Program and Suspicious Activity Report Filing Requirements for Registered Investment Advisers and Exempt Reporting Advisers, 1506-AB58 133. TREAS/IRS, Returns of Information of Brokers in Virtual Currency Transactions, 1545-BP71 134. TREAS/IRS, Short-Term, Limited-Duration Insurance and Independent, Non-Coordinated Excepted Benefits Coverage, 1545-BQ28 135. TREAS/IRS, Mental Health Parity and Addiction Equity Act and the Consolidated Appropriations Act, 2021, 1545-BQ29 ENVIRONMENTAL PROTECTION AGENCY 136. EPA/OAR, Waste Emissions Charge for Petroleum and Natural Gas Systems; Procedures for Facilitating Payment, Including Netting and Exemptions, 2060-AW02 137. EPA/OAR, Federal ‘‘Good Neighbor Plan’’ for the 2015 Ozone National Ambient Air Quality Standards; Response to Judicial Stay, 2060-AW30 138. EPA/OCSPP, Reconsideration of the Dust-Lead Hazard Standards and Dust-Lead Post Abatement Clearance Levels, 2070-AK91 139. EPA/OCSPP, Decabromodiphenyl Ether and Phenol, Isopropylated Phosphate (3:1); Revision to the Regulations of Persistent, Bioaccumulative, and Toxic Chemicals Under the Toxic Substances Control Act (TSCA), 2070-AL02 CONSUMER FINANCIAL PROTECTION BUREAU 140. Required Rulemaking on Personal Financial Data Rights, 3170-AA78 141. Registry of Nonbank Covered Persons Subject to Certain Agency and Court Orders, 3170-AB13 FEDERAL ENERGY REGULATORY COMMISSION 142. Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, 1902-AF87 FEDERAL TRADE COMMISSION 143. Trade Regulation Rule on the Use of Consumer Reviews and Testimonials, 3084-AB76 SECURITIES AND EXCHANGE COMMISSION 144. Form N-PORT and Form N-CEN Reporting; Guidance on Open-End Fund Liquidity Risk Management Programs, 3235-AM98 145. Registration for Index-Linked Annuities and Registered Market Value Adjustment Annuities; Amendments To Form N–4 for Index-Linked Annuities, Registered Market Value Adjustment Annuities, and Variable, 3235-AN30 146. Regulation NMS: Minimum Pricing Increments, Access Fees, and Transparency of Better Priced Orders, 3235-AN23

#### And, FERC 1920 is at the top of the docket on Trump’s deregulation wishlist

Camacho 24 [Francisco Camacho, 12-10-2024, "Trump wants agencies on a short leash. What does that mean for FERC?", E&E News by POLITICO, https://www.eenews.net/articles/trump-wants-agencies-on-a-short-leash-what-does-that-mean-for-ferc/]

The U.S. electric grid is also expanding after decades of flat growth. FERC used its Democratic majority in May to reassert itself over regional grid planning in its landmark Order 1920. At the time, the sole Republican commissioner, Christie, issued a blistering dissent. The new long-term planning process sidelined states, he and other critics said. Other opponents asserted the commission intended to spur costly long-distance transmission projects for the sole purpose of delivering wind and solar power to left-leaning states. Trump’s political allies attacked Order 1920. Last month, FERC deflected some of the political heat around Order 1920 by boosting the role of states and securing bipartisan support on the commission, including from Christie. In creating the commission, Congress meant to keep it from being swept up by politics. Emily Hammond, an energy and administrative law professor at George Washington University, noted that Congress gave commissioners staggered terms. They can never have more than a bare majority of a single party. “The purpose of doing that is to insulate the agency from some of the political winds that can flow so strong in D.C.,” Hammond said. White House review of FERC rules Trump might be able to carry out his campaign promise and subject regulations to White House review, though it would likely require support in Congress. Tom Pyle, president of the American Energy Alliance who helped run Trump’s first energy transition team, thinks the idea has some merit. FERC already responds to political influence, Pyle said, so why not make it transparent. “I don’t know that it would be necessary to have that level of overlay with FERC and these other independent commissions, but it’s worth discussing,” Pyle said. But Kelliher, the former chair under Bush, says the White House couldn’t impose review of FERC rules. “If the new president were to issue an executive order asserting control, that executive order would have no more force in an independent commission than any other presidential executive order,” Kelliher said. Some think such a plan might be able to avoid approval from Congress, especially if a friendly judiciary heard any challenges. Hammond at George Washington University, who previously served as a deputy general counsel in President Joe Biden’s Department of Energy, called the legality of White House review of FERC orders “unclear.” “It’s certainly an approach that would be counter to the design of the independent agencies,” Hammond said. “All of the presidents that have carried out this idea of centralized review going back to President [Ronald] Reagan have avoided bringing independent agencies into that review process,” Hammond continued. “I’m certain that this is something that the Trump administration is exploring, and it could be quite challenging to actually implement it.” E&E News reached out to the offices of Republican members of the Senate Energy and Natural Resources Committee on whether there would be support for Trump White House reviews of FERC orders and staffing. All of them either did not respond or said they had no comment. Firing commissioners Coming into office, Trump will have a 3-2 Democrat majority on FERC, and the most senior Democrat, Phillips, has his seat through 2026. While the president can, and almost certainly will, pass the chairmanship to a Republican commissioner, Democrats would still have the majority, unless one of them resigned — or Trump fired them. “It is an open question whether the future President Trump would try to do that,” Hammond said. The law that created FERC states that the president can remove commissioners “only for inefficiency, neglect of duty, or malfeasance in office.” The Supreme Court has upheld that standard — most famously in Humphrey’s Executor v. United States. But there are some wrinkles. One is how long it would take to litigate a possible improper firing. In Humphrey’s Executor, for example, William Humphrey of the FTC was fired by then-President Franklin Roosevelt in 1933, but it took the Supreme Court two years to rule that the firing was improper. By that time, Humphrey had passed away. The court awarded his estate damages, but his replacement was allowed to stay on the FTC. Yet Kelliher points out that Humphrey’s Executor occurred in the early years of independent agencies. With nearly a century of legal development since then, Kelliher believes a modern court would act swiftly. “If the president would just say, ‘Because you disagree with me, I’m firing you for cause because it’s malfeasance to disagree with the president,’ it would not be difficult for a court to impose a stay on the president’s decision, and I think the commissioner in question would not vacate his or her office,” Kelliher said. Another question is whether today’s Supreme Court could modify the standard for removing a commissioner or even reject the concept of independent agencies. Hammond notes that Justice Brett Kavanaugh has been particularly skeptical of Humphrey’s Executor, though he said it should not be overturned. “The theory there is that the president should have very strong control over all agencies,” Hammond continued. “It’s a very real possibility that there are judges and justices who would strike back at the constitutionality of independent agencies.” Defunding FERC A tried-and-true method for defanging agencies in Washington is throttling funds. “FERC is self-funding, but there is an appropriations process that goes through Congress,” said Mark Templeton, an associate professor at the University of Chicago Law School. Hammond notes that with a Republican Congress, Trump could use the budget to shape the agency. “We could expect to see things like the Office of Public Participation being dramatically underfunded, which would be a real blow to FERC’s efforts under the Biden administration to enhance environmental justice considerations,” Hammond said. FERC’s Office of Public Participation was established in 2021 to help members of the public engage in the commission’s often highly technical proceedings. Congress funded the office as part of bipartisan 2020 appropriations. It’s unclear what Trump’s team thinks of the office, but Chatterjee said he told the incoming administration which FERC offices they “could squeeze from.” Chatterjee declined to specify which ones he identified. Staff-level moves When he was last in office, Trump launched a late-stage attempt to reshape the civil service. In October 2020, he signed an executive order creating Schedule F, a new class of career employees who could be fired more easily. Biden rescinded the order before it could be tested, but a returning Trump is likely to have a second bite at the apple. And few corners of government stand to be changed more by such a change at FERC. “FERC, because it’s a technical agency, doesn’t have a lot of political appointees in key leadership positions,” Hammond said. “We could see some of these positions being reclassified as political positions. If that were to happen, then there would be people within FERC who could be fired at will.” Historically, presidents have sought Senate agreement to reclassify agency positions, but the question of whether that’s required is unsettled. Congress gives FERC the authority to appoint its “officers and employees as are necessary in the execution of its functions,” indicating they serve at the pleasure of the commission, not the president. But which officers are “necessary”? “Where there’s statutory creation of a position or an office, that is pretty locked in,” said Templeton of the University of Chicago. That would include at least a few director-level positions: the secretary, general counsel and executive director. “The extent to which the other functions could be curtailed” is an “open question,” Templeton said.

#### And FERC 1920 is key to grid resilience

FERC 24 [Fact Sheet from the Federal Energy Regulatory Commission – “Building for the Future Through Electric Regional Transmission Planning and Cost Allocation” - May 13, 2024 - https://www.ferc.gov/news-events/news/fact-sheet-building-future-through-electric-regional-transmission-planning-and]

FERC’s new transmission and cost allocation rule, Order No. 1920, continues the essential work of the Commission – ensuring a reliable grid – by requiring the nation’s transmission providers to plan for the transmission we know we will need in the future. This rule adopts specific requirements addressing how transmission providers must conduct long-term planning for regional transmission facilities and determine how to pay for them, so needed transmission is built. The final rule reflects more than 15,000 pages of comments from nearly 200 stakeholders representing all sectors of the electric power industry; environmental, consumer and other advocacy groups; and state and other government entities. The grid rule contains these major elements: Requirement to conduct and periodically update long-term transmission planning to anticipate future needs. Requirement to consider a broad set of benefits when planning new facilities. Requirement to identify opportunities to modify in-kind replacement of existing transmission facilities to increase their transfer capability, known as “right-sizing.” Customers pay only for projects from which they benefit. Expands states’ pivotal role throughout the process of planning, selecting, and determining how to pay for transmission facilities. Long-Term Regional Transmission Planning More specifically each transmission operator to: Produce a regional transmissio, the rule requires n plan of at least 20 years to identify long-term needs and the facilities to meet them. Conduct this long-term planning at least once every five years using a plausible and diverse set of at least three scenarios that incorporate specific factors and use best available data. Apply seven specific benefits to determine whether any identified regional proposals will efficiently and cost-effectively address long-term transmission needs. Include an evaluation process to identify long-term regional transmission facilities for potential selection in the regional plan. Include a process giving states and interconnection customers the opportunity to fund all, or a portion, of the cost of a long-term regional transmission facilities that otherwise would not meet the transmission provider’s selection criteria. In the event of delays or cost overruns, reevaluate long-term regional transmission facilities that previously were selected in a regional transmission plan. Consider transmission facilities that address interconnection-related needs identified multiple times in existing generator interconnection processes, but that have not been built. Consider the use of Grid Enhancing Technologies such as dynamic line ratings, advanced power flow control devices, advanced conductors and transmission switching.

#### That solves and prevents emergency grid collapse

Bright 24 [Zach Bright covers the Federal Energy Regulatory Commission and the nuclear energy industry for E&E News by POLITICO – “FERC shakes up power industry with landmark grid rule” – E&E News by Politico - 05/13/2024 01:44 PM EDT – modified for language that may offend - https://www.eenews.net/articles/ferc-shakes-up-power-industry-with-landmark-grid-rule/]

A divided Federal Energy Regulatory Commission said grid planners and transmission owners must ~~look~~ (plan) 20 years ahead to expected shifts in how electricity is produced and consider a range of long-term benefits to building and upgrading power lines. The vote for the rule, Order 1920, was 2-1. FERC established new requirements for how the costs of building high-voltage power lines should be allocated among customers, pulling states deeper into issues around regional infrastructure. Also Monday, FERC unanimously passed a separate rule, Order 1977, that gives it the authority to grant permits to electric transmission lines in certain instances where states do not act first. The development of long-distance power lines that cross multiple states is increasingly dividing red and blue states. Many led by Democrats are adopting clean energy and climate goals that will require a larger grid, while some Republicans wary of a transition away from fossil fuels have questioned the costs of projects that may cross into their borders. Monday’s FERC decision seeks to change federal and state approaches to regional planning that has made it harder to shift the nation to low-carbon technology. In areas where grid planning isn’t well coordinated among states, projections for rapidly expanding demand from data centers and the electrification of homes and vehicles is raising concern about grid reliability. FERC Chair Willie Phillips called both new rules “giant steps” and said the transmission planning and cost allocation rule “cannot come fast enough.” “Combined, these two new rules make the first significant FERC action on transmission policy in more than a decade,” Phillips said during Monday’s meeting. New transmission projects spanning hundreds of miles are crucial if more renewable energy is to move from prime wind- and solar-producing areas of the Great Plains and Southwest to urban centers. Seeking to expand the economic and political argument for a bigger and more resilient power grid, the Department of Energy has stressed the crucial role transmission lines can play in preventing or recovering from grid emergencies caused by weather assaults like Winter Storm Uri that rocked the Texas system in 2021. Biden administration officials have said the existing regional transmission capacity needs to double to achieve a goal of cutting carbon pollution from the power sector by 2035. And electric utilities have been ratcheting down their use of coal. But power generation still accounts for nearly a quarter of U.S. greenhouse gas emissions. Senate Majority Leader Chuck Schumer (D-N.Y.), who pushed FERC on the rulemaking, welcomed the final standards as talks on grid legislation languish in Congress. “These new rules together with the Inflation Reduction Act will deliver lower costs for American families, cleaner air for our communities and a brighter future for the youngest generation and beyond,” Schumer said.

#### Grid catastrophe is coming---extinction

Pearce et al 21 [Dr. Joshua M Pearce - the John M. Thompson Chair in Information Technology and Innovation at the Thompson Centre for Engineering Leadership & Innovation, Ivey Business School, Department of Electrical & Computer Engineering, Western University, Canada. Co-authors include: **Anders Sandberg** - Researcher at the Mimir Center for Long Term Futures Research at the Institute for Futures Studies at Oxford. Sandres holds a PhD in computational neuroscience from Stockholm University, and is a former senior research fellow at the Future of Humanity Institute at the University of Oxford; **David Denkenberger**, Assistant Professor in Mechanical Engineering at UAF College of Engineering and Mines; **Ross Tieman**, Research Associate & Data Coordinator at ALLFED. Ross received a BSc (Hons.) from the University of Adelaide, a double degree in chemistry and philosophy. “Long-term cost-effectiveness of interventions for loss of electricity/industry compared to artificial general intelligence safety” – vol 9(1) - European Journal of Futures Research - Sept 20, 2021 - https://pmc.ncbi.nlm.nih.gov/articles/PMC8451736/]

attacks could disrupt regional/global electricity. Since electricity basically drives industry, industrial civilization could collapse without it. This could cause anthropological civilization (cities) to collapse, from which humanity might not recover, having long-term consequences. Previous work analyzed technical solutions to save nearly everyone despite industrial loss globally, including transition to animals powering farming and transportation. The present work estimates cost-effectiveness for the long-term future with a Monte Carlo (probabilistic) model. Model 1, partly based on a poll of Effective Altruism conference participants, finds a confidence that industrial loss preparation is more cost-effective than artificial general intelligence safety of ~ 88% and ~ 99+% for the 30 millionth dollar spent on industrial loss interventions and the margin now, respectively. Model 2 populated by one of the authors produces ~ 50% and ~ 99% confidence, respectively. These confidences are likely to be reduced by model and theory uncertainty, but the conclusion of industrial loss interventions being more cost-effective was robust to changing the most important 4–7 variables simultaneously to their pessimistic ends. Both cause areas save expected lives cheaply in the present generation and funding to preparation for industrial loss is particularly urgent. Introduction Civilization relies on a network of highly interdependent critical infrastructure (CI) to provide basic necessities (water, food, shelter, basic goods), as well as complex items (computers, cars, space shuttles) and services (the internet, cloud computing, global supply chains), *henceforth referred to as industry.* Electricity and the electrical infrastructure that distributes it plays an important role within industry, providing a convenient means to distribute energy able to be converted into various forms of useful work. Electricity is one component of industry albeit a critical one. Industry provides the means to sustain advanced civilization structures and the citizens that inhabit them. These structures play a critical role in realizing various futures by allowing humanity to discover and utilize new resources, adapt to various environments, and resist natural stressors. Though industry is capable of resisting small stressors, a sufficiently large event can precipitate cascading failure of CI systems, resulting in a collapse of industry. If one does not temporally discount the value of future people, the long-term future (thousands, millions, or even billions of years) could contain an astronomically large amount of value [18]. Events capable of curtailing the potential of civilization (existential risks, such as human extinction or an unrecoverable collapse) would prevent such futures from being achieved, implying reducing the likelihood of such events is of the utmost importance [100]. Reducing the prevalence of existential risks factors; events, systemic structures, or biases which increase the likelihood of extinction but do not cause extinction by themselves is also highly valuable. Complete collapse or degraded function of industry would drastically reduce humanity’s capacity to coordinate and deploy technology to prevent existential risks, representing an existential risk factor. Consequently, interventions preventing loss of industry, reducing the magnitude of impacts, or increasing speed of recovery could be extremely valuable. Existential risk research is, by nature, future focused, requiring the investigation of events that have not yet occurred. Futures studies methodologies are often applied to uncover salient trends or events, and explore potential causal structures [54, 123]. Probabilistic modeling techniques can then be used to determine the likelihood of such events occurring, including adequate treatment of uncertainty [101]. The cost-effectiveness modeling approach outlined in this paper is an example of this, attempting to assess the marginal utility of losing industry interventions on improving the long-term future. This approach could guide future efforts to assess the relative cost-effectiveness of interventions for different risks, existential or otherwise. More practically, this research can inform prioritization efforts of industrialized countries by providing estimates of the cost of global industrial collapse, and the utility of resilience interventions. This is relevant to the European Union which has a highly industrialized economy, providing $2.3 Trillion USD of the $13.7 Trillion USD global total of value add manufacturing [122]. The EU has shifted toward a more proactive foresight approach about natural and man-made disasters, noting the importance of rare high-impact events, systemic risks, and converging trends requiring better data and forecasting to drive a more ambitious crisis management system [47]. Still, it is clear that most academic and institutional emphasis has been on “ordinary” rather than extreme disasters, and risks from industry to the public and environment rather than widespread failures of industrial services causing harm. The integrated nature of the electric grid, which is based on centralized generation makes the entire system vulnerable to disruption.1 There are a number of anthropogenic and natural catastrophes that could result in regional-scale electrical grid failure, which would be expected to halt the majority of industries and machines in that area. A high-altitude electromagnetic pulse (HEMP) caused by a nuclear weapon could disable electricity over part of a continent [16, 48, 66, 93]. This could destroy the majority of electrical grid infrastructure, and as fossil fuel extraction and industry is reliant on electricity [49], industry would be disabled. Similarly, solar storms have destroyed electrical transformers connected to long transmission lines in the past [117]. The Carrington event in 1859 damaged telegraph lines, which was the only electrical infrastructure in existence at the time. It also caused Aurora Borealis that was visible in Cuba and Jamaica [70]. This could potentially disable electrical systems at high latitudes, which could represent 10% of electricity/industry globally. Though solar storms may last less than the 12 h that would be required to expose the entire earth with direct line of sight, the earth’s magnetic field lines redirect the storm to affect the opposite side of the earth [117]. Lastly, both physical [6, 8, 69, 89, 111] and cyber attacks [3, 63, 90, 96, 118, 128, 130] could also compromise electric grids. Physical attacks include traditional acts of terrorism such as bombing or sabotage [130] in addition to EMP attacks. Significant actors could scale up physical attacks, for example by using drones. A scenario could include terrorist groups hindering individual power plants [126], while a large adversary could undertake a similar operation physically to all plants and electrical grids in a region. Unfortunately, the traditional power grid infrastructure is simply incapable of withstanding intentional physical attacks [91]. Damage to the electric grid resulting in physical attack could be long lasting, as most traditional power plants operate with large transformers that are difficult to move and source. Custom rebuilt transformers require time for replacement ranging from months and even up to years [91]. For example, a relatively mild 2013 sniper attack on California’s Pacific Gas and Electric (PG&E) substation, which injured no one directly, was able to disable 17 transformers supplying power to Silicon Valley. Repairs and improvements cost PG&E roughly $100 million and lasted about a month [10, 102]. A coordinated attack with relatively simple technology (e.g., guns) could cause a regional electricity disruption.

#### And even if the grid eventually comes back, it decks cooperation in the interim---causes extinction from war, trade, volcanoes, and asteroids

Pearce et al 21 [Dr. Joshua M Pearce - the John M. Thompson Chair in Information Technology and Innovation at the Thompson Centre for Engineering Leadership & Innovation, Ivey Business School, Department of Electrical & Computer Engineering, Western University, Canada. Co-authors include: **Anders Sandberg** - Researcher at the Mimir Center for Long Term Futures Research at the Institute for Futures Studies at Oxford. Sandres holds a PhD in computational neuroscience from Stockholm University, and is a former senior research fellow at the Future of Humanity Institute at the University of Oxford; **David Denkenberger**, Assistant Professor in Mechanical Engineering at UAF College of Engineering and Mines; **Ross Tieman**, Research Associate & Data Coordinator at ALLFED. Ross received a BSc (Hons.) from the University of Adelaide, a double degree in chemistry and philosophy. “Long-term cost-effectiveness of interventions for loss of electricity/industry compared to artificial general intelligence safety” – vol 9(1) - European Journal of Futures Research - Sept 20, 2021 - https://pmc.ncbi.nlm.nih.gov/articles/PMC8451736/]

Current awareness of interventions given loss of electricity/industry (hereafter “interventions”) is very low, likely in the thousands of people. Also, many of the interventions are theoretical only and need to be tested experimentally. There may be a significant amount of shortwave radio systems that are shielded from HEMP and have shielded backup power systems, but likely some addition to this capacity would be beneficial. This paper analyzes the cost-effectiveness of interventions from a long term perspective. It is unlikely that the loss of industry would directly cause human extinction. However, by definition, there would be a loss of industrial civilization for the global catastrophes. Furthermore, there could be a loss of anthropological civilization (basically cities or cooperation outside the clan). One definition of the collapse of civilization involves short-term focus, loss of long distance *trade,* widespread *conflict*, and *collapse of government* [27]. Reasons that civilization might not recover include (i) easily accessible fossil fuels and minerals are exhausted [88] (though there would be minerals in landfills), (ii) the future climate might not be as stable as it has been for the last 10,000 years [58], or (iii) technological and economic data and information might be lost permanently because of the trauma and genetic selection of the catastrophe [19]. If the loss of civilization were prolonged, a natural catastrophe, such as a *super volcanic eruption* or an *asteroid/comet* impact, could cause the extinction of humanity. Another way to far future impact is the trauma associated with the catastrophe making future catastrophes more likely, e.g., global totalitarianism [21]. A further route is worse values caused by the catastrophe could be locked in by artificial general intelligence (AGI) [20], though with the loss of industrial civilization, the advent of AGI would be significantly delayed, so the bad values could have decayed out by then.

#### And, new solar flare peak by July guarantees extinction if there’s a rollabck

Bannister 25 [Dan Bannister – but not *that* Dan Bannister – ‘25 – et al; Daniel Bannister, Weather & Climate Risks Research Lead at The WTW Research Network Team. After working as a research associate at the University of Cambridge, and as a regional climate modeller at the British Antarctic Survey, Daniel worked at SATAVIA as an atmospheric scientist and became their Chief Scientific Officer, co-ordinating innovation projects with other partners, such as GKN Aerospace, the University of Oxford, and European institutions. More recently, he worked as a climate scientist at Cervest developing statistical models to analyse extreme future climate conditions, at high-spatial resolution, with a particular focus on extreme windstorm events, to help organisations disclose climate-related risks. He gained his BSc in Geography at the University of Portsmouth, his MSc in Atmospheric Sciences at the University of East Anglia, and his PhD on the climate of South Georgia involved a collaboration with the British Antarctic Survey. Co-Authored with Scott St. George and Hélène Galy – also both specialists with the WTW Research Network – “The Gray Swan in our sky: The multibillion-dollar threat of solar flares” - WTW Research Network Newsletter - February 25, 2025 - https://www.wtwco.com/en-cz/insights/2025/02/the-gray-swan-in-our-sky-multibillion-dollar-threat-of-solar-flares

As a new solar maximum approaches, the historic Carrington Event draws parallels to contemporary natural catastrophes, highlighting the potential for significant economic and operational losses. Like earthquakes that gradually build up stress before releasing it in sudden ruptures, the sun undergoes similar cycles of mounting magnetic tension. This cyclical solar activity occurs about every 11 years, marked by phases of low and high activity, known respectively as solar minimum and solar maximum. During the solar maximum, the sun unleashes powerful forces, including solar flares and coronal mass ejections, which can significantly disturb Earth’s magnetosphere, leading to geomagnetic storms that may disrupt communication systems, power grids and satellite operations. Sunspots — dark patches on the sun caused by magnetic fluctuations — are vital indicators of the sun’s magnetic activity and help predict the phases of the solar cycle. We are currently in solar cycle 25, which began in December 2019 and is expected to reach its peak around July 2025 (Figure 1). Earthly consequences Readers fortunate enough might have observed visual displays of auroras in May 2024. This was a direct result of the most powerful solar storm since October 2003, reflecting the heightened solar activity that marks the ramp-up toward the solar maximum phase of the cycle. While these solar outbursts are spectacular to observe, they also have the power to disrupt our technology-dependent society significantly. Recent disruptions include: Satellite failures In February 2022, two coronal mass ejections caused up to 40 Starlink satellites to reenter Earth’s atmosphere shortly after launch,[1] costing about US $25 million. Communication disruptions In December 2023, one of the largest ever solar radio events disrupted radio aircraft communications.[2] In November 2015 (solar cycle 24), a solar storm closed Sweden’s airspace for nearly an hour, disrupting flights.[3] One study indicates that during solar flares, flight departure delay time increases on average by 21% (eight minutes).[4] Power outages A major coronal mass ejection in March 1989 (solar cycle 22) significantly interfered with the U.S. power grid and caused a nine-hour power failure in Quebec, costing US $13.2 million.[5] These incidents underscore the capacity for substantial economic disruptions and considerable financial pressures on businesses, governments and particularly the insurance industry. Not quite black or white Solar flares epitomize the concept of a gray swan event. Unlike black swans, which are unpredictable and exceptionally rare events with severe consequences (such as the 2011 Tōhoku earthquake), gray swans like solar flares are not entirely unforeseen. They are characterized by some level of predictability based on historical patterns or scientific forecasts.

### Contention2 -- Biodiversity

#### Even a limited expansion of nuclear power *destroys the biosphere*.

Dr. M.V. Ramana 24, PhD in Physics from Boston University, Professor and Simons Chair in Disarmament, Global and Human Security at the University of British Columbia, and Director of the Master of Public Policy and Global Affairs program at the School of Public Policy and Global Affairs, previously worked at the Nuclear Futures Laboratory and the Program on Science and Global Security, both at Princeton University, member of the International Panel on Fissile Materials, the International Nuclear Risk Assessment Group, and the team that produces the annual World Nuclear Industry Status Report, “Nuclear is not the solution: atomic power in the age of climate change”, Verso Books

My bottom line is that nuclear energy, whether with old reactor designs or new faux alternatives, will simply not resolve the climate crisis. The threat from climate change is urgent. The world has neither the financial resources nor the luxury of time to expand nuclear power. Meanwhile, even a limited expansion would aggravate a range of environmental and ecological risks. Further, nuclear energy is deeply imbricated in creating the conditions for nuclear annihilation. Expanding nuclear power would leave us in the worst of both worlds. Too virtuous to meter? Proponents of nuclear energy have other reasons to support their preferred technology. They argue that nuclear reactors can do much more than just generate electricity. The “much more” depends on the specific context, and could include creating well-paying jobs, boosting national pride, providing energy independence, supplying clean water, and producing medical isotopes to treat cancer. As the public has become more concerned about climate change, nuclear advocates have appended to this list two more applications for energy from nuclear reactors: capturing carbon dioxide from the atmosphere (direct air capture) and producing hydrogen and high temperature heat for industrial processes. All of these are reminiscent of what Admiral Lewis Strauss, one of the central characters in the hit Hollywood film Oppenheimer and the chair of the US Atomic Energy Commission in the 1950s, told the National Association of Science Writers on September 16, 1954. Ten days after the ground-breaking for first US nuclear plant, Strauss told his audience that given the great promise of nuclear technology, it would not be “too much to expect that our children will enjoy in their homes electrical energy too cheap to meter.” The many claims about what else nuclear reactors can do make one wonder: Is nuclear energy too virtuous to meter? Let me offer one example from a company called Hyperion Power Generation offering a small nuclear power plant design that was actively covered in the media between 2007 and 2012. In March 2010, the founder of this company, John Deal, told the Albuquerque Journal, “We started this company to clean water in Africa … Our emphasis is helping people not die from not having clean water … If you’ve got energy, you can have all the clean water you want.” This was not a one-off sales pitch. In their 2011 article in Issues in Science and Technology, writer Ross Carper and academic Sonja Schmid offer this description of Deal in action: In the middle of Deal’s talk in Denver, he began flipping through some artist-drawn images. The most striking of all shows a small nuclear reactor, buried and unattended at what looked to be less than 15 feet below the surface. Two simple tubes snake upward from the reactor, drawing the eye to a pair of gray above-ground tanks, with the words “Potable Water” stamped on the side. The setting? An impoverished African village complete with about a dozen mud constructed, thatch-roofed huts. A handful of people were drawn into the image, all of them walking to or from the clean water source, which is apparently powered by a $50 million HPM.7 HPM stands for Hyperion Power Module, the nuclear reactor the company was advertising, and the cost estimate of $50 million for a nuclear reactor should be seen in that light—as wishfully cheap. (A few years later, Pitch Book, a database of private equity-based corporations, listed the company as “out of business.”) Such promises of atomic energy delivering progress to Africa date back to the beginning of the nuclear age. On January 28, 1947, for example, Waldemar Kaempffert, the science editor of the New York Times, predicted, The desert of Sahara could easily be irrigated by electric pumps driven by uranium power, with the result that more surplus cotton than we could sell at a profit and more surplus plant food than we could eat would be dumped on the market. Africa would be transformed into another Europe, with savages [sic!] who never saw a steam shovel or railway train transformed into machine tenders.8 After more than half a century of experience with nuclear technology, ideas about using it to provide clean water to poor people are delusional at worst and deceptively self-serving at best. Reducing the problem of insufficient clean water to an absence of energy ignores the many other problems that prevent African villagers from accessing clean water and the persisting legacies of colonialism and imperialism that led to “underdevelopment” in the first place.9 In his “communal memoir” of the aerospace industry Blue Sky Dream, the journalist David Beers talks about a special characteristic of the former Nazi rocket scientist Wernher von Braun, the man sometimes termed “the father of America’s space program” due to his important role in transferring rocket technology to the United States. The classic American entrepreneurial hero searches out unmet desires in the everyday world and then, with a certain flexible flair, invents the answers, products for the masses to use. Von Braun’s genius lay elsewhere. He was brilliant at inventing new and different uses for the only product he ever desired to make, the space rocket. He was a master at selling his one product to the only customers who could ever afford it, a nation’s rulers.10 Much like von Braun, vendors and advocates of nuclear power are really interested only in selling nuclear reactors, and they try to invent different uses for their favoured product. Delivering clean water, heating houses or industries, and propelling rockets and ships are all only vehicles for selling nuclear reactors. However, the appeal to other uses for nuclear reactors is also, simultaneously, an expression of the inability of the technology to economically deliver on its primary product: electricity. It is the weakness of the nuclear industry that forces it to seek alliances with other constituencies. Too destructive to meter? Nuclear energy does have one virtue, but it is one that its advocates, for the most part, avoid mentioning: its innate and inseparable connection to nuclear weapons, and more generally, to the military. I use the word “virtue” to mean both an inherent attribute and an asset beneficial to its proponents. Technically, there are significant overlaps between the apparatus needed to produce nuclear energy and what is needed to produce the fissile material, the hardest step in acquiring nuclear weapons. In addition, personnel can be interchanged between the nuclear energy and weapons programs. And finally, there are institutional incentives for organizations developing nuclear energy to get involved in making nuclear weapons, due to the political power that flows from the latter. Nuclear technology also contributes to powering long-range submarines, especially those used to fire off nuclear missiles, and to providing the material to manufacture depleted uranium munitions used in Iraq and Ukraine. I elaborate on these connections in chapter 5. Nuclear energy advocates often argue against conflating nuclear energy with nuclear weapons, but the connection is visible for all those who want to look. As of September 2023, 275 of the 410 nuclear reactors labelled as operating by the International Atomic Energy Agency are in countries possessing nuclear weapons. Add countries like Canada and Japan that are militarily allied with nuclear weapon states, and the overlap is staggering. While it is certainly true that not all countries with nuclear energy have produced nuclear weapons, they are closer to being able to do so than they would be if they had never built nuclear reactors. The overlap between the two technologies was obvious to most knowledgeable people at the beginning of the atomic age. In 1946, when discussing a proposal for the international control of nuclear weapons, Robert Oppenheimer, the head of the program that produced the first atomic bombs, which destroyed Hiroshima and Nagasaki, expressed it thus: “We know very well what we would do if we signed such a convention: we would not make atomic weapons, at least not to start with, but we would build enormous plants, and we would design these plants in such a way that they could be converted with the maximum ease and the minimum time delay to the production of atomic weapons.” Within a few years, however, countries with nuclear technology started a sustained campaign to get the public to think differently about nuclear energy, most notably after President Dwight Eisenhower’s “Atoms for Peace” speech in 1953. This “greatest of destructive forces,” Eisenhower prophesized, “can be developed into a great boon, for the benefit of all mankind,” can be put to “universal, efficient and economic usage” and whose “special purpose would be to provide abundant electrical energy in the power-starved areas of the world.” In other words, forget the destructive capacity of nuclear energy. Just focus on what a wondrous future it can create. The Soviet counterpart of this effort is captured by the slogan “May the atom be a worker, not a soldier.” The hope seems to be that by pretending that nuclear energy was not linked to weapons, public fears about the destruction that would result from the use of nuclear weapons would be quelled. Institutions and governments around the world developing nuclear technology often start by touting its potential to produce electricity. This was the case in India. For over two decades, India’s Atomic Energy Commission was ostensibly working on nuclear energy only “for peaceful purposes,” until the 1974 test of a nuclear weapon blew up that pretense.11 Many private companies profit enormously from both nuclear energy and nuclear weapons. Examples include Bechtel, Babcock & Wilcox (now BWX Technologies), and Fluor in the United States, Larsen & Toubro in India, and Rolls Royce in the United Kingdom. While there might not be a similar level of involvement by private companies in countries like China, where public sector and national organizations play the analogous roles, the differences between the two categories are not very material to understanding the structure of, and trends in, the nuclear sector. National laboratories contract out work and are sometimes even managed by private companies. And private companies thrive on public contracts that they often have exclusive access to, belying any notion of free markets and competitive entrepreneurship. For both corporate and governmental entities, nuclear technology is a wonderful asset. As analyst and disarmament activist Andrew Lichterman argues: The nuclear road provides elites in nuclear establishments with privileged access to their own country’s resources, a development context that can be shielded from foreign competition, and forms of trade and industry that can be portrayed as increasing in importance as fossil fuels diminish. This is so whether the intention to develop nuclear weapons is clear or is allowed to remain ambiguous. The powerful tools of nationalism and ‘national security’ secrecy can be used to facilitate the extraction of wealth from the rest of society and prevent scrutiny of national nuclear enterprises that whether in first generation nuclear powers or post-colonial states have been rife with technical problems, corruption, and widespread, intractable environmental impacts.12 Overview of the book The chapters that follow explain why expanding nuclear power production is neither a desirable nor a feasible solution to climate change. Due to the use and production of radioactive materials at reactors, expanding nuclear energy to mitigate climate change will inevitably result in a variety of undesirable risks and environmental impacts. Nor is it compatible with environmental and social justice.13 The consequences and burdens of such an expansion will fall primarily on communities that are distant from the centers of power, and economically and politically too marginal to figure in the calculations of decision makers. In chapter 1, I explain how all nuclear reactors, including small ones, are at risk for severe accidents due to their intrinsic technological characteristics. When it comes to nuclear facilities, I will argue, there is nothing that fits a strict definition of “safe.” The risk is exacerbated by a range of factors, including extreme weather patterns due to climate change, the multiple and conflicting priorities of organizations operating nuclear facilities, and the weakening of regulation by industry lobbyists and other powerful economic actors. Accidents, when they occur, produce radioactive contamination that reaches across space and time; thirty-five years after the Chernobyl accident, parts of Ukraine and Belarus are still uninhabitable because of high radiation levels. Radioactive cesium released by the disaster was found in sheep in England, which remained contaminated for decades; restrictions on eating these sheep were lifted in all areas only in 2012. Expanding nuclear energy production will also result in a growing inventory of radioactive wastes, no matter what kinds of reactors are used. Some of these wastes remain radioactive, and thus hazardous to human health, for hundreds of thousands of years. Despite decades of well-funded research, there is no demonstrated way to safely manage them, and because of the long periods involved, there will always be uncertainties about the fate of these materials.14 As a result, it is likely that radioactive materials will contaminate the biosphere at some point in the future. This is an important cause for opposition from communities near sites chosen for nuclear waste repositories. Another concomitant activity to the operation of reactors is uranium mining, which has been responsible for contaminating land and water around the world, especially in areas occupied by Indigenous communities. Given these inevitable impacts, nuclear power is neither clean nor sustainable. One way that some nuclear energy advocates try to get around these conclusions is by claiming that exposure to radiation is harmless, at least below some threshold. But as I explain, there is ample evidence that exposure to radiation, even at low levels, leads to cancers and other negative health outcomes.

#### Biodiversity loss causes extinction.

Dr. Justine Bell-James 25, Professor & Director of Higher Degree Research at the TC Beirne School of Law at the University of Queensland, PhD from QUT (2010) and was a postdoctoral research fellow at UQ's Global Change Institute from 2011-2013, has led projects funded by the Australian Research Council, CSIRO, and the National Environmental Science Program, also with James Watson, “With just 5 years to go, the world is failing on a vital deal to halt biodiversity loss”, https://theconversation.com/with-just-5-years-to-go-the-world-is-failing-on-a-vital-deal-to-halt-biodiversity-loss-249841

As biodiversity continues to degrade, the foundation of life on Earth becomes increasingly unstable. Biodiversity loss threatens our food, water and air. It increases our vulnerability to natural disasters and imperils ecosystems crucial for human survival and wellbeing.

### Contention 3 – Prices

#### Electricity prices are relatively low.

Kennedy ’25 [Ryan; 01/16/2025; Master of Energy and Environmental Management degree at the University of Connecticut; "Wholesale electricity prices lower and more stable in 2024", pv magazine USA, https://pv-magazine-usa.com/2025/01/16/wholesale-electricity-prices-lower-and-more-stable-in-2024/ anish]

Data from the Energy Information Administration (EIA) show that wholesale electricity prices were lower and more stable in 2024 than in 2023. EIA said pricing was significantly more stable than the last several years. EIA attributed the lower prices and diminished volatility to a decline in natural gas prices and to increases in low-cost renewable energy resources and battery energy storage capacity. Natural gas prices from Louisiana’s Henry Hub, a benchmark for the market, averaged $2.21 per million British thermal units, the lowest average annual price in inflation-adjusted dollars ever reported. “Price changes for natural gas have an outsized influence on wholesale electricity prices because natural gas prices tend to set the marginal price of electricity during most hours in most regional markets,” EIA said. “The wholesale price of electricity on the electric power grid reflects the real-time cost for supplying electricity, which can be driven by fluctuations in demand.”

#### The most recent international studies show that nuclear energy raise electricity prices

Hannam 24 [Peter, 9-19-24, “Coalition’s nuclear plan will add $665 a year to average power bill, report warns,” Guardian, https://www.theguardian.com/australia-news/2024/sep/20/coalition-nuclear-power-plan-will-add-665-dollars-to-average-power-bill-a-year-report-warns?utm\_source=chatgpt.com

The Coalition’s plan for seven nuclear power plants would lift power bills for average households by $665 a year based on estimated costs of six overseas nuclear projects, according to an Institute for Energy Economics and Financial Analysis report. The Ieefa findings built on the CSIRO’s GenCost studies that have shown nuclear energy to be the most expensive form of new power generation. It assessed recent construction costs at plants in the US, UK, Finland and France, and two proposed plants – one in the Czech Republic and an abandoned small modular reactor in the US. “The cost of electricity generated from nuclear plants would likely be 1.5 to 3.8 times the current cost of electricity generation in eastern Australia,” the Ieefa report by Johanna Bowyer and Tristan Edis found. “In the international examples examined, the capital cost of nuclear power plants was very high – up to $90bn,” Bowyer said. “Recent international large-scale nuclear projects have experienced construction challenges, delays and cost blowouts.” Nuclear’s cost disadvantage compared with solar, wind and other generation types is likely underestimated, Edis said. Ieefa’s modelling assumed a 60-year economic lifetime excluding likely refurbishment costs, a “very high” 93% utilisation rate and no financial premium despite the higher construction risks of nuclear plants. “Further, Australia has very limited nuclear capability, and all examples used were from countries which already have an established nuclear industry,” Edis said. “So Australia could see even higher bills than what our study shows. “Nuclear is often mistakenly perceived to be a cost-effective technology because it is in widespread use across the globe,” he said. “Yet most of the plants built in the western world were committed based on projected costs and timeframes that turned out to be horrible underestimates.” The Ieefa paper’s release coincided with an update of the world nuclear energy industry status report supported by the German and Austrian governments among others. It found nuclear generation capacity shrank 1 gigawatts last year and host nations excluding China closed a net 51 units over the past two decades. Most energy companies and the Albanese government have rejected the Coalition’s nuclear plans, citing costs and their likely unavailability for many years, since they were announced in June. Peter Dutton is expected to provide more details at a Ceda thinktank event in Sydney on Monday. The government has set a target of supplied 82% of electricity from renewable energy sources by 2030, or about double the present proportion. The Australian Energy Market Operator, though, has repeatedly warned renewables were not being added fast enough to cope with expected closures of coal-fired plants. Ted O’Brien, the opposition’s climate and energy spokesperson, said Ieefa’s modelling “does not reflect Coalition policy” and matched previous critiques “where a dodgy piece of analysis cherrypicks the worst-case scenario projects and pretends that it’s common practice”. “Our zero-emissions nuclear power plants will be government-owned and, unlike Labor’s capacity investment scheme, we will release our costings ahead of the next election,” O’Brien said. The world nuclear energy industry status update, meanwhile, found total investment in non-hydro renewables capacity reached a record US$623bn (A$913bn) in 2023, or 27 times the reported global investment decisions for nuclear plant construction. Solar generation capacity rose 73% and windfarm capacity 51%, adding a combined 460GW of new renewables capacity even as nuclear generation shrank 1GW. Wind and solar electricity amounted to 50% more than nuclear, the report found. All up, 13 nations were hosting 59 nuclear reactor construction projects, or three fewer countries than in mid-2023. At least 23 of those projects faced delays. China dominated with 27 reactors being built, all at home. Russia accounted for the bulk of the remainder, with 26 units under construction, 20 of which were in seven nations, said the report co-written by the independent analyst and nuclear critic Mycle Schneider.

#### High prices stunt crypto production or move it to other countries.

Bedwell et al. ’18 [Helena; 02/05/2018; Bloomberg News Reporter; Vanessa Dezem, Master’s degree in Digital Journalism from Instituto de Empresa; Stephen Stapczynski, Leading Asia Energy Coverage at Bloomberg News; Jonathan Tirone, Foreign Correspondent; "The Cost of Crypto Is Turning Miners Towards Green Power", BloombergNEF, https://about.bnef.com/blog/the-cost-of-crypto-is-turning-miners-towards-green-power/ anish] *\*Figures omitted*

Vakhtang Gogokhia’s plan to extract cryptocurrencies from the netherworld of cyberspace relies on a strategy familiar to many old-school manufacturers who use a lot of energy — the cheaper the fuel, the better. That’s why Gogokhia, who heads a startup called Golden Fleece, put a cargo container with Chinese-built computers inside a dilapidated Soviet-era tractor factory in Georgia, about 60 miles (100 kilometers) east of the Black Sea. The site made sense for running servers 24 hours a day because it has access to low-cost electricity generated by water flowing from the nearby Caucasus Mountains. There also are plans for solar panels and wind turbines. Renewable energy is becoming the preferred way of mining digital currencies like Bitcoin as prices surge and the industry seeks more computing power. While traditional fuels like coal remain staples for many utility grids, big miners including Bitmain Technologies Ltd., HIVE Blockchain Technologies Ltd. and Bitfury Group are tapping clean power in places like Canada, Iceland and Paraguay — and luring investors worried about the industry’s carbon footprint. “To conquer the riches of cryptocurrency,” said Gogokhia, Golden Fleece’s 28-year-old chief executive officer and a former employee of the state-owned electricity grid, “we undertook the quest to build cheap, green and sustainable mining farms in Georgia.” It’s easy to see why energy sources are getting more attention. The increasingly difficult computations for creating new blockchains — the encrypted digital ledgers that underpin cryptocurrencies — require ever-more powerful computers. And many of the big server farms need air conditioning to keep from overheating. The industry’s electricity use jumped almost eight-fold in the past year, and spending on power can eat up 30 percent to 60 percent of revenues, Bloomberg New Energy Finance estimates. “The price of electricity mostly drives where mining is taking place,” said Christian Catalini, who founded the Cryptoeconomics Lab at the Massachusetts Institute of Technology outside of Boston. “If the price of electricity increases in one location, mining will likely just move somewhere else.” A move toward increased mobility by producers has prompted Austria’s Hydrominer GmbH and Switzerland’s Envion AG to build computer-packed data centers into cargo containers that can be hauled off to new locations. Over the past year, creating cryptocurrencies almost anywhere got more profitable as prices skyrocketed, sparking a rapid global expansion of mining activities along with hundreds of new kinds of tokens. Bitcoin alone was valued at more than $325 billion in December — exceeding the market capitalization of Wal-Mart Stores Inc., after jumping to almost $20,000 each from less than $800 a year earlier. Still, the computers needed to create and sustain Bitcoin require as much electricity every day as 30 nuclear power reactors running at full capacity, and the industry already is using more than all the world’s electric vehicles, BNEF estimates. While the technology around creating cryptocurrencies may evolve to be more efficient, requiring less energy, electricity costs remain a key concern for miners, especially after Bitcoin fell to below $8,000 this month. Compounding the risk from volatile prices, some older operations are under pressure from regulators and investors, even in places where electricity prices are low. In China, the world’s the biggest cryptocurrency producer, many server farms rely on cheap, surplus power from coal-fired plants that contribute to pollution. The government has forced industries to limit climate-warming emissions, and officials are contemplating new taxes to assert more control over domestic power markets and digital currency operations. About 70 percent of major Bitcoin-mining pools are based in China or owned by Chinese companies, according to Blockchain.info. With the prospect of new limits in China, investors are looking elsewhere. In Georgia, which gets about three quarters of its electricity from hydroelectric plants, Golden Fleece will pay $50 per megawatt-hour, or well below the world average of $121, BNEF data show. Iceland and Switzerland are even cheaper, while Canada and Paraguay are among those at half the global average. “Mining with clean energy is possible and economically sound in those places,” said Guy Lane, director of the Long Future Foundation, an Australian-based non-profit. The foundation promotes ideas to protect the planet and has studied the impact of cryptocurrencies on the environment. The industry’s increasing enthusiasm for finding clean power comes at a time when renewable energy has become a staple in utility grids around the world as the technology improved and costs fell. In the U.S., renewables like wind and solar accounted for 17 percent of electricity supply last year, twice the market share of a decade earlier, reducing demand for coal, government data show. Renewables will capture $9 of every $10 spent on new power projects through 2040, according to BNEF’s New Energy Outlook report, with startups from Australia to Texas to Estonia trying to give rooftop solar and windmill owners the chance to sell directly to consumers. Places with surplus hydroelectric capacity are also drawing more attention. In Paraguay’s Ciudad del Este, a municipality on the Parana River across the border of southern Brazil, cryptocurrency miners are setting up in the city’s free-trade zone. They are tapping cut-rate power generated from the nearby 14-gigawatt Itaipu hydropower plant, the world’s second-biggest dam, which produces more electricity than Paraguay can consume. Prices are about a quarter of what they are in neighboring Brazil. “Miners are looking for where they can have higher margins,” said Brazilian miner Rocelo Lopes, adding that his 6,000 computers in Ciudad del Este are South America’s biggest cryptocurrency operation. “It is a very volatile market, and from one day to the next, you can lose money.” In Canada, utilities Hydro Quebec and BC Hydro are courting cryptocurrency miners, according to Harry Pokrandt, the CEO at Vancouver-based HIVE Blockchain Technologies. But cheap electricity isn’t the only consideration, he said. The local speed and reliability of the internet and a solid legal framework are almost as important, and climate matters because cooler weather means lower costs to keep their computers cool. Back in Georgia, Golden Fleece is trying to raise $40 million — through an initial coin offering that promises investors a dividend paid in a digital currency. The cash would be used to build servers to mine Etherium, an increasingly popular token that recently fetched $1,125, up from $230 as recently as September. The country’s richest man, former Prime Minister Bidzina Ivanishvili, helped BitFury set up a mining center in a Tbilisi free-trade zone that cost more than $100 million. “Miners are looking for where they can have higher margins,” said James Butterfill, the executive director and head of research and investment strategy at ETF Securities UK Ltd. “It is a very volatile market, and from one day to the other, you can lose money. So having a cheap source of power is very important.”

#### Keeping crypto mining in the U.S. prevents financial abuse and dirty emissions.

Les and Morgenstern ’23 [03/25/2023; Jason Les, CEO of Riot Platforms, Inc.; Brian Morgenstern, Riot’s head of public policy and was a senior adviser and deputy assistant secretary of the Treasury from 2017 to 2020; "Why keeping Bitcoin mining in the U.S. helps the economy, national security, and even the environment", Fortune Crypto, https://fortune.com/crypto/2023/03/25/why-keeping-bitcoin-mining-in-the-u-s-helps-the-economy-national-security-and-even-the-environment/ anish]

Relative to other leading Bitcoin mining jurisdictions, the U.S. has an extremely clean energy grid. Texas is a leader in Bitcoin mining and the home of Riot Platforms’ operations, the largest Bitcoin mine in North America. According to the American Clean Power Association, Texas led the nation in renewable energy capacity added in 2021—close to three times that of second-place California. Pushing Bitcoin mining offshore, under the guise of environmentalism, would only mean the U.S. will capture less of Bitcoin’s value, and more mining will happen connected to dirtier energy grids in more hostile parts of the world. For example, Russia is infamous for not only fossil fuel production and its use of energy for political brinksmanship, it’s among world leaders in leaking methane into the atmosphere. It’s already among the top five Bitcoin mining jurisdictions and seeking more market share. Weakening the American Bitcoin mining industry would be an enormous gift to Russia—and increase global carbon emissions. That leads to the national security issue. As noted in a recent Justice Department report on cryptocurrencies, America has strong anti-money laundering rules and ensures that as people move Bitcoin value from the network in and out of traditional accounts, it is traceable—nefarious actors can be caught, unlike in other parts of the world. Russia, for example, is a world leader in ransomware attacks and the abuse of cryptocurrency, as well as traditional financial intermediaries. Keeping Bitcoin mining in America means that more value will be captured by highly regulated U.S. companies and law-abiding individuals simply interested in optionality when it comes to storing and transferring value. Bitcoin mining has created thousands of jobs. Riot alone employs approximately 500 people, many in Rockdale, Texas, a community previously suffering from the closure of a large industrial aluminum-smelting plant. Riot is now helping to support a program with the Texas State Technical college to upskill the local workforce with programs in computer repair and programming. Bitcoin mining is a bourgeoning industry that’s good for the environment, the economy, and national security. Attacks from nefarious political forces should be rejected to maintain America’s leadership role in the digital economy.

#### Otherwise, crypto laundering causes sanctions evasion---extinction.

Mohammad Omar Farooq & Mohammad Dulal Miah 22, Miah received his PhD in Development Economics from Ritsumeikan Asia Pacific University, Japan. His research interests include property rights, economic development, the economics of rents and justice seeking, comparative financial system, corporate governance, etc.; Farooq is Head of the Center for Islamic Finance, Bahrain Institute of Banking Finance. His interests include Islamic economics/banking/finance, Islamic law and jurisprudence, and Islamic political economy, "Fintech, Technomania, and Persistent Socio-Civilizational Challenges," Digital Transformation in Islamic Finance, Routledge, 2022, pp. 64-80

4.4 Wars and conflicts One persistent scourge of human civilization has been wars and conflicts. There was hardly any era in human history when some wars or conflicts did not take place. However, modern civilization has not seen less of them. Rather, 20th century has been noted as the century of genocide, and the same century also has seen two of the worst wars of global scales, the two world wars. If technology has brightened, enriched, and enhanced many aspects of our lives, and positively touched so many people around the world, it is also the science and technology driven by war or military pursuits that now have brought the planet to an existential threat. The human species now has built the military capacity to be able to self-destruct. As Russia invaded Ukraine, both countries part of Europe asthe hotbed of two world wars, and if the global military powers and NATO did not feel restrained and behave pragmatically, such a war initiated by a nuclear superpower can easily spin out of control and turn into another existential threat. The quest of major powers to have dominating edge over the adversaries involves no-stone-unturned approach, where they are in morbid race in biological, nuclear, chemical, and other disastrous weapons of mass destruction. Many of these wars are for vain glories of individual megalomaniacs or dominance-seeking global and regional powers. Many of these wars occur under false pretexts, and often to serve the interest of the global military weapons manufacturing industry, whose quest is not just for innovating defensive solutions, but also offensive solutions that are bought and sold like kitchen knives. In 2015, Federation of American Scientists warned: while it is impossible to precisely predict all the human impacts that would result from a nuclear winter, it is relatively simple to predict those which would be most profound. That is, a nuclear winter would cause most humans and large animals to die from nuclear famine in a mass extinction event like the one that wiped out the dinosaurs. (Starr, 2015) Some of these risks might be exaggerated, but if there is a nuclear war where nuclear powers get involved and deploy their weapons, beyond the deterrence, there is a potential existential threat to human civilization. At least in the context of wars and conflicts, without humanity-oriented values and empathy, technology so far has been more of bane than boon. The most recent development of Russian invasion of Ukraine, which can escalate to a major war of the 21st century in the heartland of Europe, has placed Fintech industry into a new bind. Fintech envisions a world with “money without borders” (Webb, 2022). Under the new, globally coordinated sanction against Russia, Fintech companies are feared to face enormous restrictions on their transactions. Ukrainian allies, in particular, the European Union, UK, and USA have imposed various sanctions on Russian government and oligarchs in response to Russia’s invasion in Ukraine. The sanctions include, along with other broad measures, expelling major Russian banks from the SWIFT, a communication system for international banking transactions. The key to implementing sanctions is the international banking system through which funds are transferred cross-borders. Banks put every measure to know their customers as well as the sources and purpose of funds being transferred. In such a process, banks are strictly reluctant to process financial transactions related to sanctioned individuals or entities. However, Flitter and Yafe-Bellany (2022) put it in this way “… if banks are the eyes and ears of governments in this space, the explosion of digital currencies is blinding them.” The primary motto of cryptocurrency is to maintain its neutrality which means that no regulatory entity including the government can prevent its use. Unlike banks which require formal approval from the respective central bank for processing major transactions, the exchange of cryptocurrency aims to bypass such procedures. In effect, no regularity entity can effectively prevent parties to exchange cryptocurrency because the exchange takes place between peers without involving any intermediary. Some countries including North Korea, Iran, and Venezuela have used the loopholes of cryptocurrency to ease the pressure of Western sanctions. North Korea is a notorious example which has occasion-ally used hacking techniques, using ransomware, to steal cryptocurrency from different parts of the world worth billions of dollars (Kim, 2022). In 2020, about 74% of global ransomware revenues valued US$400 million worth of cryptocurrency were captured by entities that are most likely linked to Russia (Flitter and Yafe-Bellany, 2022). Hence, it is highly likely that Russia would leave no stone unturned to use cryptocurrency to ease the ongoing sanctions. Abundance supply of energy has provided Russian miners with a competitive edge to mine crypto in the country. Russia ranks third in the world in mining bitcoin, the capstone among all the cryptocurrencies (Makhlouf and Selmi, 2022). Although Kazakhstan ranks second following only the USA, it is believed that Russia has an upper hand in bitcoin mining in Kazakhstan. According to Bloomberg estimation, Russia is a home to at least $214 billion worth of cryptocurrency (Fortune, 2022). Such a mounting possession of crypto would enable Russia to use crypto for buying goods and services which are currently under sanctioned. It is believed that Russia may develop a network of complicit exchange services to evade sanctions. For instance, Russia is on the verge to develop some new tools that can help mask the origin of such transactions that would allow businesses to trade with Russian entities without the risk of being detected. In addition, there are some cryptocurrencies such as Moreno, which apply private distributed ledger with a feature of privacy-enhancing technology that aims to conceal transactions. Russia can also resort to dark web marketplace such as Hydra, powered by cryptocurrency, to accomplish obscured transactions. Strict regulations and their compliance requirement enable such platforms to remain outside of researchers and regulator’s focus. Besides Hydra, other money laundering techniques, such as “nesting,” are also used for anonymous transactions. Nesting and other such techniques can hide themselves within a larger, legitimate structure to avoid regulatory purview. Moreover, the Russian government plans to develop its own digital currency, digital ruble, so that the country can use it with partner countries without first converting to dollars. China, which has already initiated digital currency, is highly likely to partner with Russia. Moreover, it is still possible that some illicit trades are happening under the radar because exchanges and cryptocurrency compliance firms do not necessarily know about all the wallets controlled by proxies of an individual on a sanction list. In such a case, sanctions against Russia wouldn’t achieve the intended purpose. This proves that while Fintech aims to facilitate transactions with ease and lower transaction cost, its use can also create a loophole for violating international orders and legitimacy.