

IDEAS

Renewables

History

- Exports / Natural Resources
- Wealth
- Emissions per capita

Time scale show
change over time

Consumption

- State, Countries
- Sector

Solar

- Wind
- Hydrop

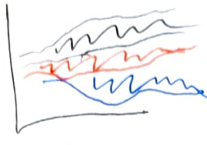
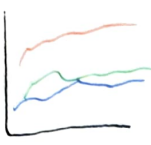
Generation

- State
- Type of fuel
- Renewable vs non

State generation

Line

Stream

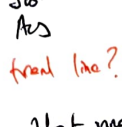
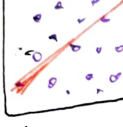
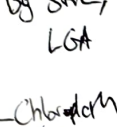


Year

Map

Scatter

Contour



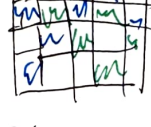
World Map

Chloropleth



Mosaic

Heat map

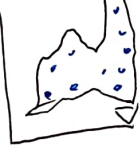
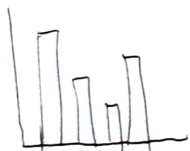


Bar

Pie

By sector

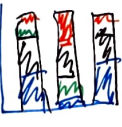
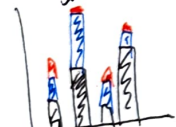
Dot map



Stack Bar

Ranking vertical Bar

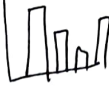
Normalised Bar



FILTER



Pie



bar



line



Stacked



bar

bar



Heat map

Mosaic

Area

Pie

select category instead of many

CATEGORISE

History / Overview

World Map comparing emissions, chlorophyll

Bar chart to rank emissions top x countries

Scatter plot to show trend

Exports

- line - each category
- Area - total show

Renewable

Stream graph

Solar or Wind focus

Map showing Wind flow across with Wind farms or

Solar potential / sun rays with solar farms. both?

2023 Focus on present drop in emissions Time in chart

Combine and Refine

Chlorophyll

Dot



+

Ranking



or

World map

or

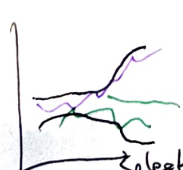
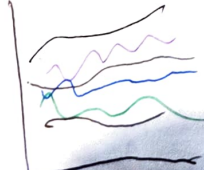
Scatter



for trend

Overlay

Stream graph Multiple view Non renewable vs Renewable



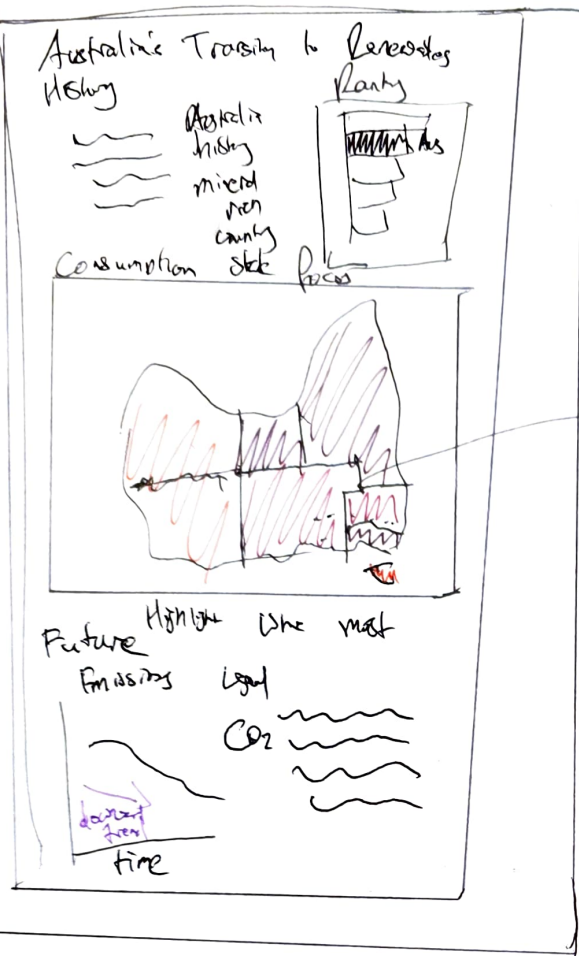
Filter

Question?

- Use line / Area chart to show trends over time
- Scatter for trend between variables
- Map - spatial data
- Both comparison

Establish why renewables and story then what has been done.

Layout



Title: Australia's transition to renewable energy

Author: Thomas Huey

Date 5/10/24

Sheet: 2

Task: Assignment 2, Visualization 2 FITS179

Operating

MAP

Zoom, centre on

various points

Zoom in on states

either based on a centre value

Try and combine this function into one value

Prof

Value



Add tooltips

Info on Consumption

Focus

Map map focus

Quantifiable value

Largest sight line

sbgs

Past → Present → Future

Discussion

- No clear sight lines
- No clear story focus on map, but map only neglect other elements
- Line chart shows necessary information but may be too simple
- Map functionality good, better redesign
- Add annotations good
- Highlight specific information Renewable
- Change to Green scheme - Green

Equal

BANNER

Area Renewable
Wind turbines Low space

Solar Panel



Hydro turbine



Low space



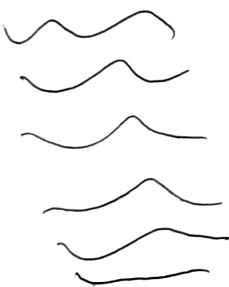
History and Problem



Energy use consumption



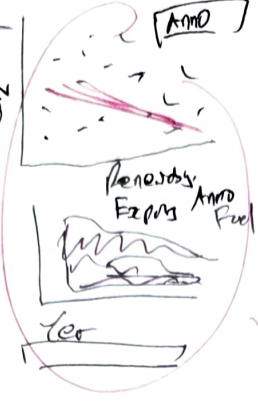
Solar Energy



What this is doing

Compare Renewable vs non-renewable growth renewable

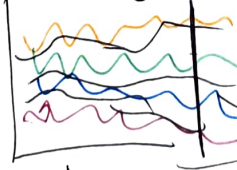
scatter



Search via



Stream graph



Equal

Solar Panel



Hydro plant



Low space



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Author: Thomas Huey

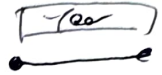
Date: 5/10/24

Sheet 3

Tool: Visio/Excel 2 PITS/79

Operations

Filter combining scatter and Area



slider

highlight one param combining the two

Pureess blocks

Filter View

Filtering by Renewable vs

Non-renewable energy sources

annotation to highlight increase in renewable fast track + line

Focus Colour

Darker colour for Fuel/non-renewable

Green - Renewable, Wind?

Yellow/Orange - Solar

Hydro - Blue

Section page 1/2 1/2 with notes to give better theme.

Discussion

More color good could be cluttered - chart junk too much colour?

Same chart but more layout better vertical split maybe right too small Sector use more adds to story. more about overall effects not so focused

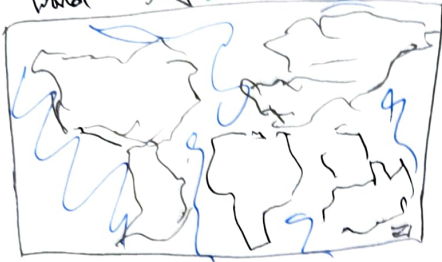
Layout

~~The need for~~

Australia transition to Renewable energy

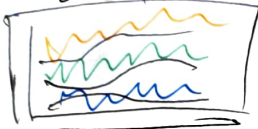
The need for Renewable energy

text on history and why need renewable, then focus on Australia
World Map % Renewables



Renewable Energy efforts

Progress increase solar, wind
Stream



Solar focus on Wind



or more wind
Solar

Future efforts
Renewable energy consumption



Emissions



Title: Australia transition to renewable energy

Author: Thomas Huang

Date 5/10/24

Sheet 4

Tool: Visualization 2 FITS179

Operations

→ ~~X~~ ~~Left~~ Top X Country

Filter Get by region too

See comparison more

acceding,

Work with map to highlight

✓ filter countries

Tools based on

LGA and vials

include zoom, map control

Filter by state

Renewable y label of

shows fuel type

unnecessary

Filter by emission type

or all

tool Annotation

Focus on charts with text describing what is shown below. Headers describe story

Why Renewable → What has been done → Focus on solar → Future / Progress what needs to be done

Discussion

Sightlines can be worse.

Text disconnected from charts

Line too long hard to read

When spans whole page

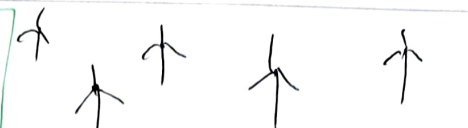
Too much white space

2 maps not needed, - too much space

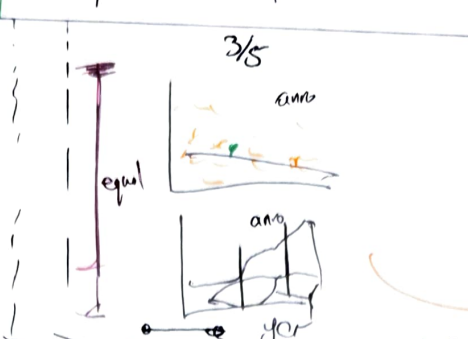
Text may be ignored for large charts.

Map too many empty values, see also not fit

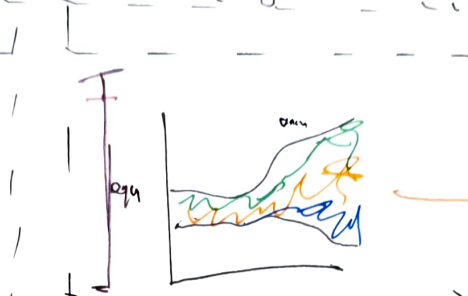
Australia transition to renewable energy



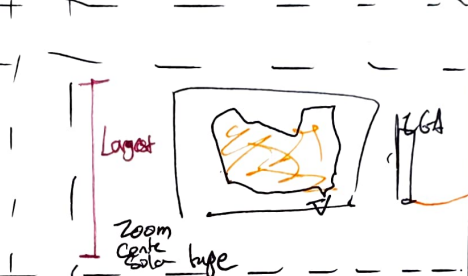
2/5
The road for Renewable
Renewable History
Focus on this



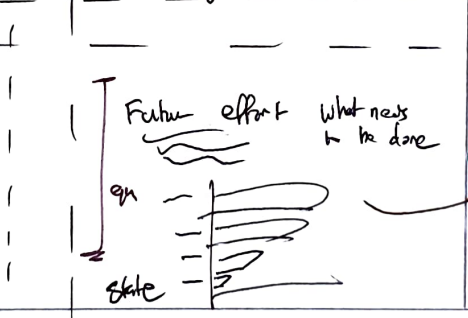
Renewable energy effort
What this is doing
until nation investment
phases



Solar Energy
Solar potential constant
Increase → growth



Future / Present
Present effort
What has been done
Past → Present → Growth



Title: Australia's transition to renewable energy
Author: Thomas Huang
Date: 5/12/24
Sheet: 5
Task: Visualization 2 P1T3/79

Operations
Sections with Pure CSS
located then transform
filter based on same
parameter
How to see all
values in year rather
than single values
Change view by
filter for
Renewable / Non Renewable / All

Zoom, center functionality
tooltips for querying

Tooltips in line
annotation on all
charts
Global annotations
on line, area graphs
where there is space

Focus

what has been done
Past → Present → Growth
Focus on major area → ~~future~~ Present to future
Rebuild type with across all parts
Title → Headings → Chart title → Paragraph text → legend / filter → Sub text
Map still main focus, largest element, now kept
under better defined sections / sightlines for clarity
Mainly Green for renewable and Orange for solar
Focus. Non-renewable assigned dull colors

~~Detail~~
Data from ABS, energy.gov.au
major.au, global carbon budget
world data
• Pure CSS for grid
• Vega-like for charts
• Clean / process data
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