

Dear colleagues,

The launch of the National Decarbonization Platform is scheduled for October 19, 2023. This is an IT platform that will help find the best energy-efficient solutions for households, communities and businesses.

Please provide the following information **by October 17.**

INFORMATION ABOUT THE MANUFACTURER

1. **Manufacturer's name:** **Baker Hughes**

2. **Manufacturer's logo,** JPG/PNG 16x9 (at least 344 x 194 pixels in size)



3. **Categories by which the Manufacturer classifies its solutions:** **Industrial & Energy Solutions, Power generation solutions, integration with renewables, LNG, pipeline, refinery, petrochemical, onshore, offshore, CCUS (carbon capture, utilization, compression, reinjection, storage)**

natural gas turbines, hydrogen turbines, steam turbines, centrifugal compressors, reciprocating compressors, centrifugal pumps, electric generators, electric motors, condensers, valves, gearboxes, digital services, remote monitoring and diagnostics, upgrades and modification, maintenance services, field services, industrial power generation modules, natural gas compression and liquefaction modules, trainings

Solutions to reduce emissions, optimize plant operations, increase availability and reliability

Oilfield equipment and services

- for example, "Generation solutions", "Solar energy", "Industrial solar panels", etc;
- there can be several categories;
- categories can be hierarchical, for example "Industrial solar panels" is included in the category "Solar energy", etc.

4. **Manufacturer's description** - may contain texts, images, links, tables, video and audio recordings, documents in any order and quantity, without restrictions

https://www.youtube.com/watch?v=IW3M_8g2zP0&list=PLMBEVfXozB8H1K1TTuw7kwrrYIBkPXAy

<https://www.bakerhughes.com/company/newsroom>

Baker Hughes (NASDAQ: BKR) is an energy technology company that provides solutions to energy and industrial customers worldwide.

Conducting business in over 120 countries and approximately 55,000 employees, we design, manufacture and deliver leading technology solutions for our customers. Powered by the industry's only end-to-end technology portfolio, and enabled by our people and scale, we drive productivity and improve outcomes for ourselves and our customers.

From the first rotary drill bit to the world's most extensive portfolio of compressors and gas turbines, and from digital solutions that predict outcomes to modular deep water technology, for more than a century our inventions have been revolutionizing the industry.

We are reducing the carbon intensity of our operations, applying proven low-carbon technology to help our customers meet their environmental goals, and innovating for the future of energy.

At Baker Hughes, we are taking energy forward – making it safer, cleaner, and more efficient for people and the planet. Visit us at [bakerhughes.com](https://www.bakerhughes.com)

5. Brief description of the Manufacturer - text (max. 140 characters)

Baker Hughes (NASDAQ: BKR) is an energy technology company that provides solutions to energy and industrial customers worldwide. Built on a century of experience and conducting business in over 120 countries, our innovative technologies and services are taking energy forward – making it safer, cleaner and more efficient for people and the planet. Visit us at [bakerhughes.com](https://www.bakerhughes.com).

6. Link to the Manufacturer's website <https://www.bakerhughes.com/>

INFORMATION ON TECHNICAL SOLUTIONS

1. Name of the decision Combined cycle using Industrial gas turbines NovaLT in conjunction with Steam Turbine to get total power up to 70MW

COMBINED HEAT AND POWER / COMBINED CYCLE / TRIGENERATION solutions with NovaLT™

2. Main image



3. Type of solution – Gas turbines power generation with steam turbines

4. Categories by which the Manufacturer classifies its solutions

- Machinery manufacturer, OEM

5. Manufacturer's name Baker Hughes

6. Solution description -

<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewiprNLSvv2BAxX87bsIHbQuChgQtwJ6BAgNEAI&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3D0a0Or8YW7Ss&usg=AOvVaw0yFPY8n22dDsAoOJfsN-N8&opi=89978449>

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewiprNLSvv2BAxX87bsIHbQuChgQtwJ6BAgREAI&url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3DDK0FX4NMZkGc&usg=AOvVaw0T-CCwck6EeE_DhMIn9za&opi=89978449

7. Brief description of the solution –

- Combined heat and power (CHP) / Trigenation (TRIGEN)

Perfect fit for cogeneration applications that is able to produce up to 31 t/h saturated steam with up to 85% CHP efficiency

Flexible and efficient output Thanks to VATN technology, that increases part load efficiency, results in a higher CHP efficiency respect to competition decreasing load

CO2 footprint reduction – up to 10kTons per year less CO2 vs grid+boiler

- Combined cycle gas turbine (CCGT)

Increases overall electrical efficiency up to 50% expanding the steam in a sliding pressure control Steam turbine dedicated design

Single source contract - Overall CCGT system design (heat and mass balance of the entire CCGT cycle)ext (max. 140 characters)


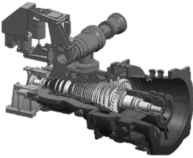
8. Name and reference to the case study

<https://www.bakerhughes.com/case-study/nova12-boosts-powergeneration-efficiency-leading-european-pulp-paper-company>

<https://www.bakerhughes.com/company/energy-forward/cogeneration-turbines-help-fire-sustainable-paper-production>

9. Technical characteristics

Energy efficiency solutions for NOVA (CHP or CCGT)

Gas Turbine Model				
		NovaLT™5	NovaLT™12	NovaLT™16
COGENERATION PERFORMANCES	Power	5,500 kWe	12,300 kWe	16,900 kWe
	Electrical Efficiency	29.4%	35.3%	36.4%
	Steam Output	15 tph	23 tph	31 tph
	CHP Efficiency	85%	80%	80%
	NOx Emissions	9* ppm	9* ppm	9 ppm
				
		Powered by Baker Hughes's Steam turbines SC/SAC/SNC		
COMBINED CYCLE PERFORMANCES 1xGT+1xST	Power	7,000 kWe	16,000 kWe	22,000 kWe
	Electrical Efficiency	46%	47%	48%

*available on request
Data based on ISO conditions, saturated steam at 10bar and 1xGT+1xST combined cycle configuration

10. Link to the solution page on the manufacturer's website

<https://www.bakerhughes.com/>

11. Additional files for this solution

<https://www.bakerhughes.com/sites/bakerhughes/files/2022-01/BH%20-%20Novalt%20brochure%20v3.pdf>

12. Additional photos of the solution, JPG/PNG 16x9 images (at least 344 x 194 pixels in size)