



New Energy Development Company

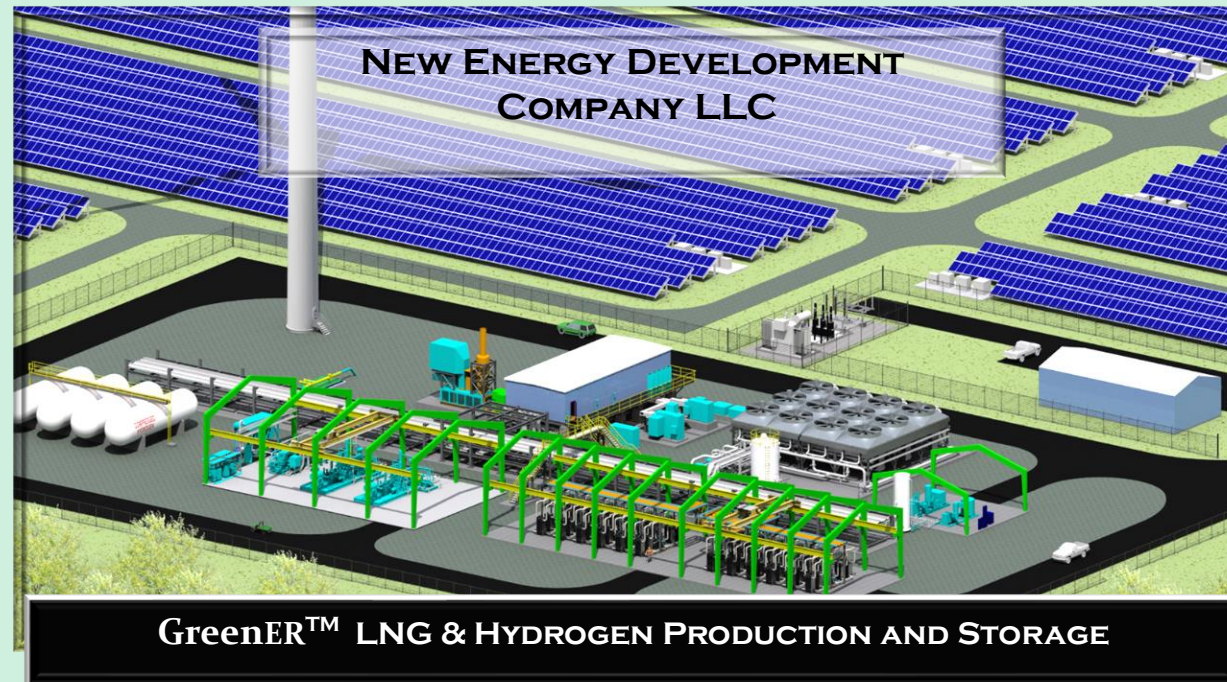
STRATEGY | PROJECT DEVELOPMENT | CAPITAL

Your GreenER™ LNG and Hydrogen Development Partner

LNG | Hydrogen | Storage
Sustainable Investments
With GreenER™ technology



- ESG changes in our industry
- What are the drivers of this transition?
- How can we adapt to these changes?
- What is on the horizon?





ESG is here,
is expanding
- and it's backed by
expansive and growing
money



BIRD'S EYE VIEW RENDERING

LNG Facility Rendering

LNG Pretreatment, Liquefaction, Field Fabricated Storage, Vaporization,
Trailer Load/Unload, and Renewable Energy Components



ESG

Global & North American State of Affairs

“The Greenium” Appears to be Real



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- **Engine No. 1** (activist fund with 0.02% stake in Exxon) targeted Exxon last December over its need to shift away from fossil fuel dependency
- **Result:** Won 3 board seats at Exxon’s annual shareholder meeting
- **Stock price topped \$64 (12%)**





Adaption from all Directions

- The SEC: ESG disclosure regulation will be a central focus of the SEC Chair Gary Gensler's tenure*.
- Moody's: Now measuring ESG in its credit score ("CIS").
- Board members: Now compensated in part based upon their companies' progress relating to ESG.



WSJ:

Green Finance Goes Mainstream, Lining Up Trillions Behind Global Energy Transition

- **Green and sustainable bond prices - up nearly 3x** to \$315 billion (1Q21 over 1Q20)
“Investors are willing to pay a premium ... That “greenium” pushes up bond & equity prices”
- **World’s largest hedge fund:** “Every day we hear from a different client we didn’t think would be into [ESG investing]; now they’re saying, ‘**It’s part of my mandate.**’ ”
- So, in April 2021: Bridgewater responds by launching a sustainable-investing venture

Money Flows Unabridged into ESG



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The New Math of Socially Responsible Investing

- YE 2019: \$17.1 trillion — 1/3 of all U.S. assets under professional management — was being managed using a sustainable-investment strategy or ESG resolutions.**
- The top 150 global asset managers now average 8 ESG analysts per firm*
- “ESG assets” expected to surpass \$53 trillion by 2025 — 1/3 of global AUM***

**<https://www.bloomberg.com/professional/blog/esg-assets-may-hit-53-trillion-by-2025-a-third-of-global-aum/>

CNBC: Nasdaq: ESG-integrated strategies AUM was \$8.2T as of the end of 2020, up 34% from the end of 2018

***<https://www.wsj.com/articles/socially-responsible-investing-11624288038> up 42% over two previous years *Nasdaq Research



ESG Driver Theories

1. Managed-Fund Profits
2. “Greenium” New Math
3. Investor Sentiment



Average Managed-Fund Fees (YE 2020)

- Standard equity funds: 0.14%
- ESG funds: 0.20%

= \$1.4 Billion in uplift-revenue from ESG

According to [The Wall Street Journal](#), investing in one's values and "doing well by doing good" comes with a cost.

Citing ETF data from FactSet, it found the ESG funds' "average fee was 0.2% at the end of last year, while standard ETFs that invest in U.S. large-cap stocks had a 0.14% fee on average



Traditional Enterprise Value

= Market Capitalization + Total Debt – Cash

- Market Capitalization = **Share Price** x Outstanding Shares
- **Share Price** = PV of Future Cash Flows*



New Enterprise Value

$$= \text{Market Capitalization} + \text{Total Debt} - \text{Cash}$$

- Market Capitalization = **Share Price** x Outstanding Shares
- **Share Price** = PV of Future Cash Flows* + **Greenium**



*ESG perception
Can add a significant Bump in
Company Valuation*



“Greenium” is Driving Investment in Sustainability Funds



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WSJ: Green Finance ...looking less like the niche investment interest
and more like a sustainable gold rush. ... May 23, 2021

Sustainability Fund Assets



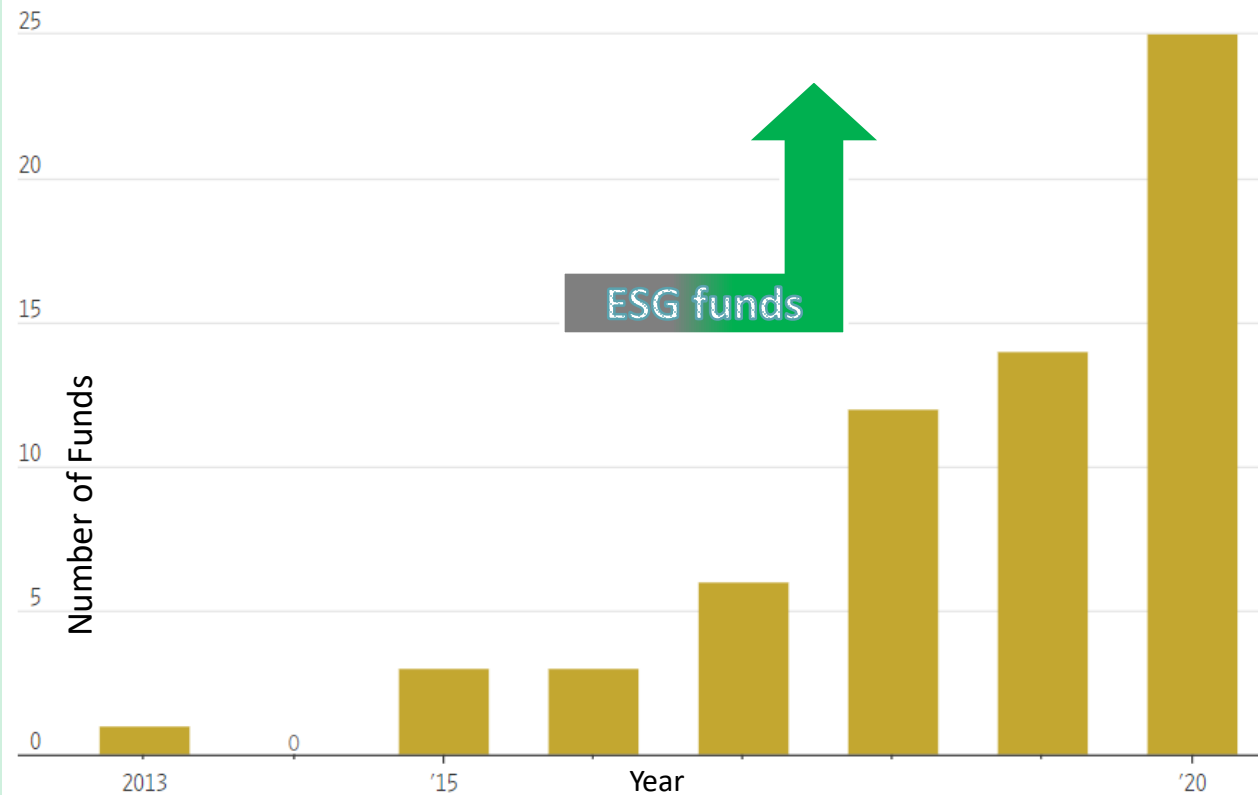
70 new renewable energy & sustainability SPACs since 3-2020





Rebranding is Occurring...

Funds are Rebranding to ESG Criteria



“Greenium” Causing Rebranding of Funds

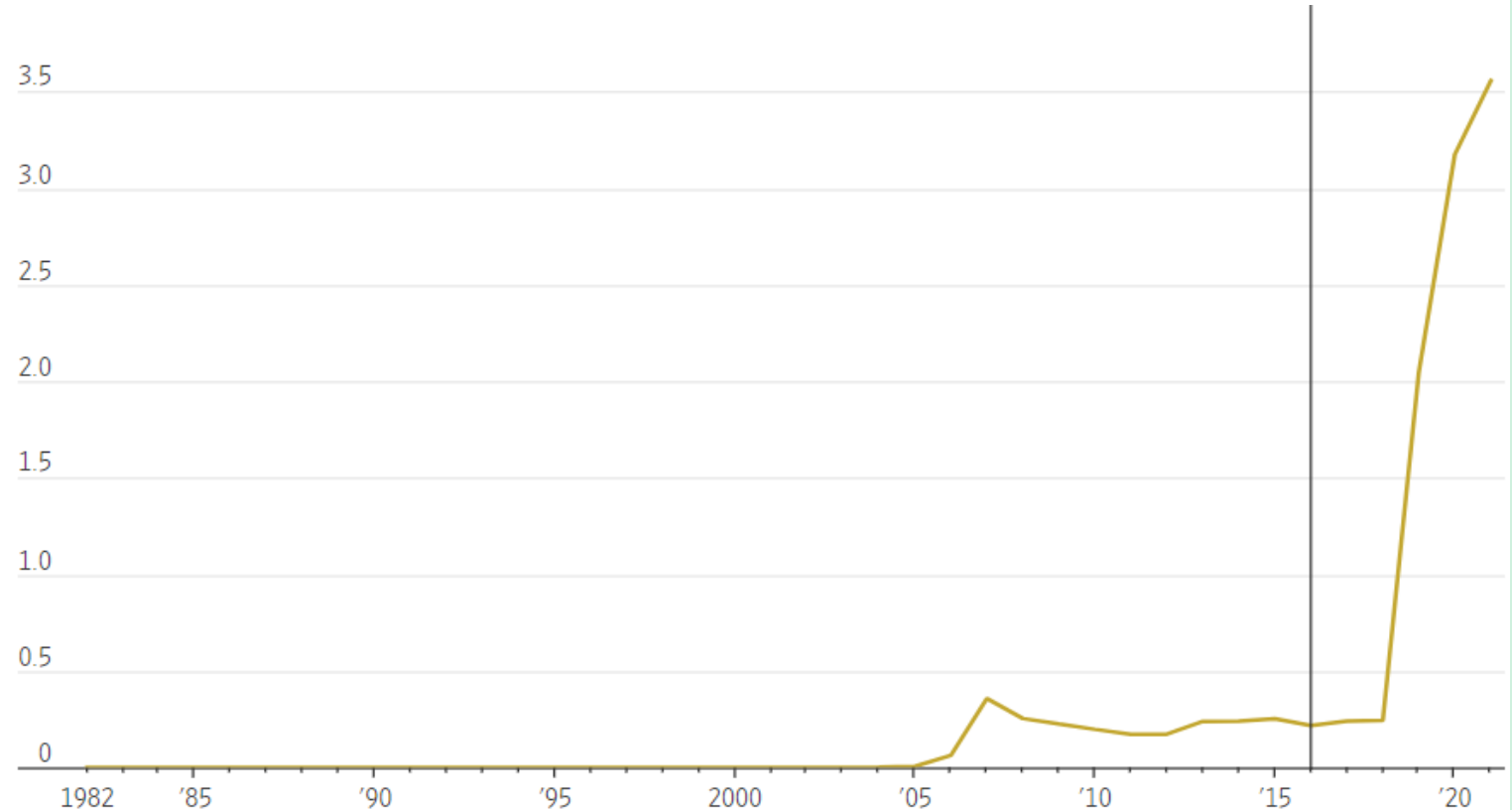


Greenium Rebranding Nets \$1.7B to American Century

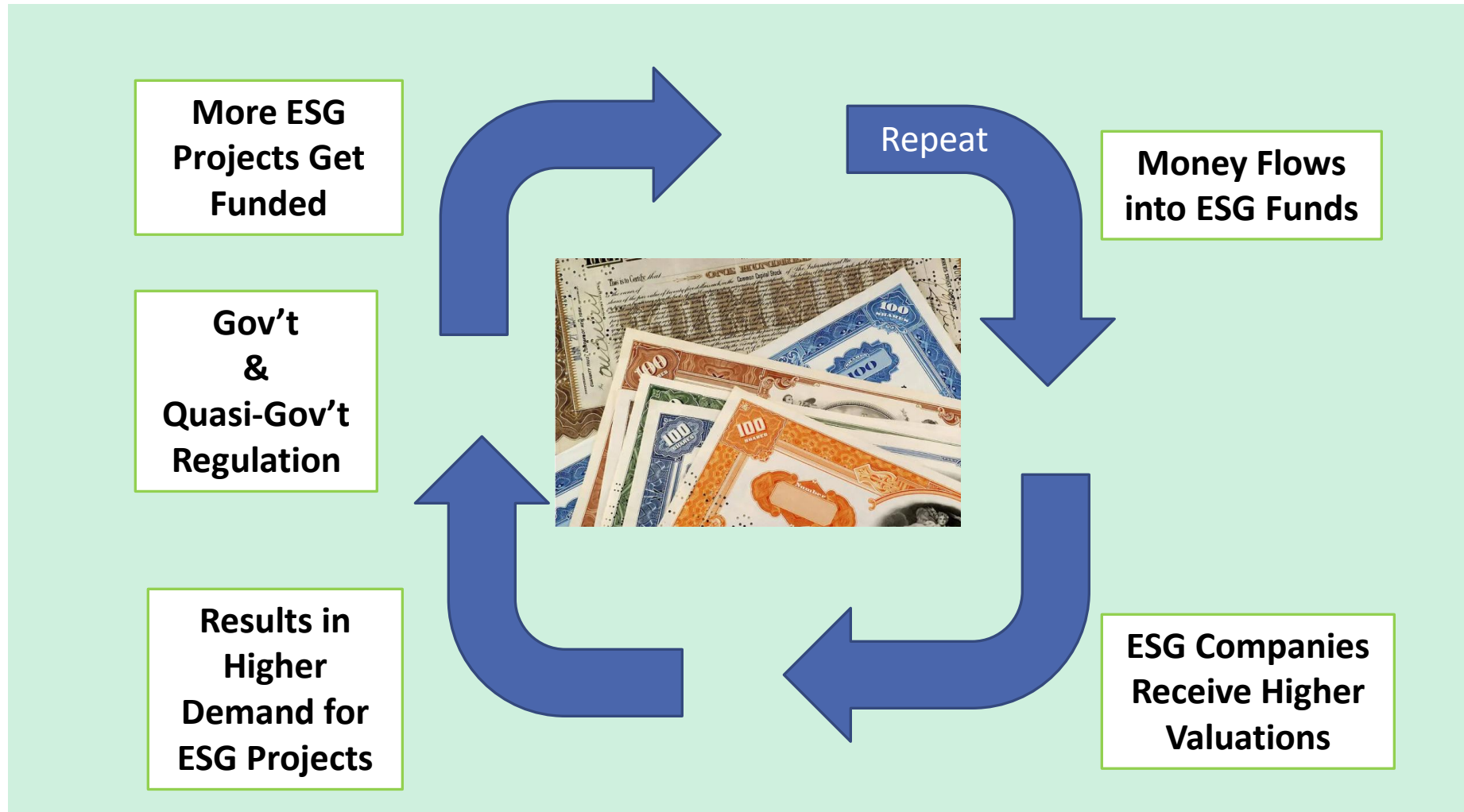
“...the investment community was more interested in sustainably investing, and it made us more marketable to clients.”
VP, Joe Reiland,
American Century
Equity Fund

American Century Sustainable Equity Fund assets

Example of Rebranding to ESG Criteria



In Sum: Demand Driven ESG Valuation Cycle





Mission

For our ESG-oriented clients:

Deliver Solutions involving **GreenER™ Hydrogen and LNG**, along with ***Process Energy Recovery (PER™)*** from prioritization to complete project development and co-investment capital.

Strategy

1. Deploy our technology and develop projects for our legacy clients in long term engagements
2. Develop new projects for to meet and advance their ESG goals
3. Redevelop, optimize and monetize existing assets

Proprietary New Energy Development LNG Plant Design

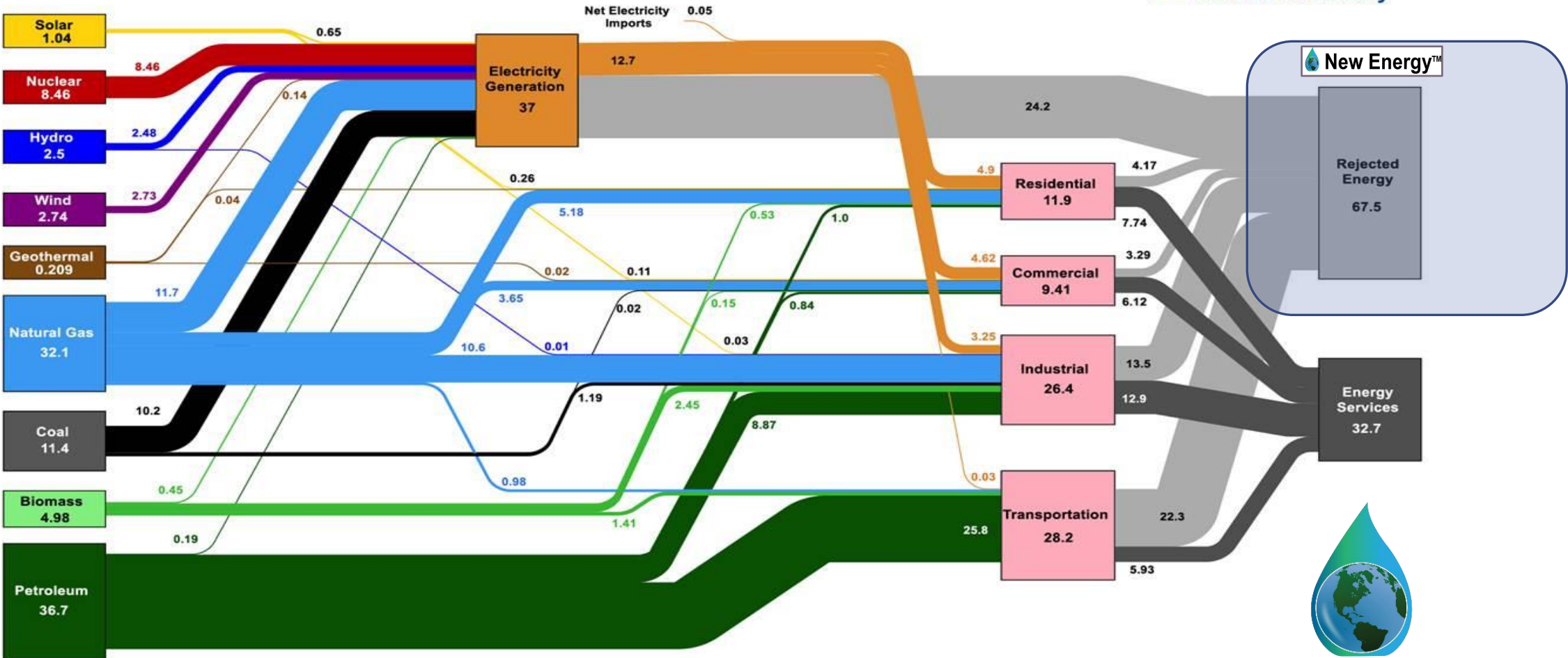


Big Picture: New Energy Development Company PER™



Estimated U.S. Energy Consumption in 2019: 100.2 Quads

Lawrence Livermore
National Laboratory



Source: LLNL March, 2020. Data is based on DOE/EIA MER (2019). If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include self-generation. EIA reports consumption of renewable resources (i.e., hydro, wind, geothermal and solar) for electricity in BTU-equivalent values by assuming a typical fossil fuel plant heat rate. The efficiency of electricity production is calculated as the total retail electricity delivered divided by the primary energy input into electricity generation. End use efficiency is estimated as 65% for the residential sector, 65% for the commercial sector, 21% for the transportation sector and 49% for the industrial sector, which was updated in 2017 to reflect DOE's analysis of manufacturing. Totals may not equal sum of components due to independent rounding. LLNL-MI-410527

PER™: Example of US Patents and Patents Pending



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- Patent designed & built for PECO Energy as a 100,000 dt/d M&R standalone under owned US Patent #6,176,046

✓ Project was awarded American Gas Association Environmental Excellence Award “for repeatable and sustainable high impact energy innovation”

- New Patent Pending will potentially reduce Capital + O&M by 10%-20%
 - \$400mm project = >\$40mm - \$80mm
 - Applicable to H2 and LNG and more



(12) United States Patent
Quine et al.

(10) Patent No.: US 6,176,046 B1
(45) Date of Patent: Jan. 23, 2001

(54) PORTABLE, PRE-MANUFACTURED, MODULAR NATURAL GAS DELIVERY STATIONS

(75) Inventors: Thomas G. Quine, Methuen; John E. Rafferty, Lowell; James M. Hunt, Methuen; James M. Smilikis, Georgetown, all of MA (US)

(73) Assignee: Northstar Industries, Inc., Andover, MA (US)

(*) Notice: Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

(21) Appl. No.: 09/198,269

(22) Filed: Nov. 24, 1998

(51) Int. Cl.: F17D 1/04

(52) U.S. Cl.: 52/79.1; 52/79.5; 52/79.9; 52/220.2; 52/745.02; 52/745.2; 290/1 A; 290/1 R; 48/190

(58) Field of Search: 52/79.1, 79.4, 52/220.2, 745.01, 745.02, 79.5, 79.9, 745.2, 750; 290/1 A, 1 R; 48/190

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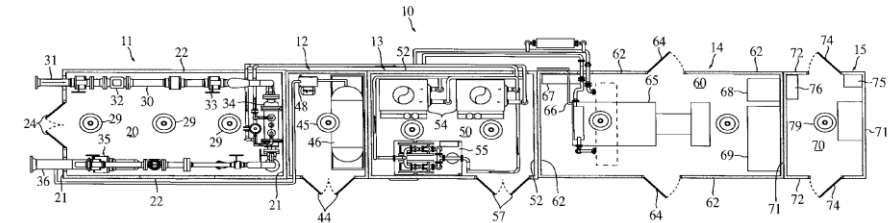
Primary Examiner—Robert Canfield

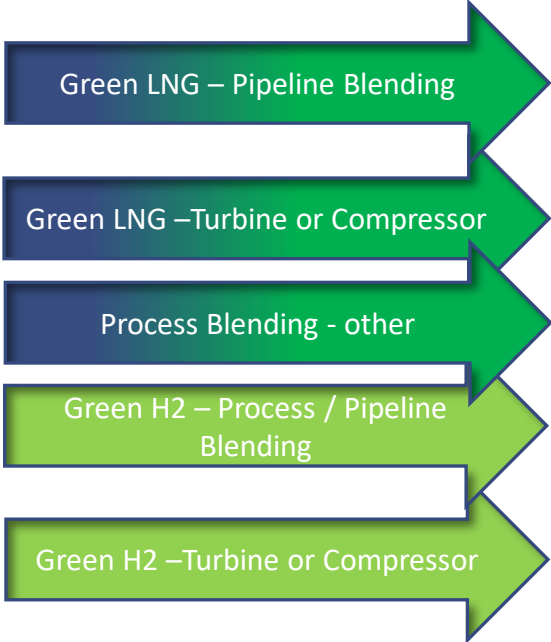
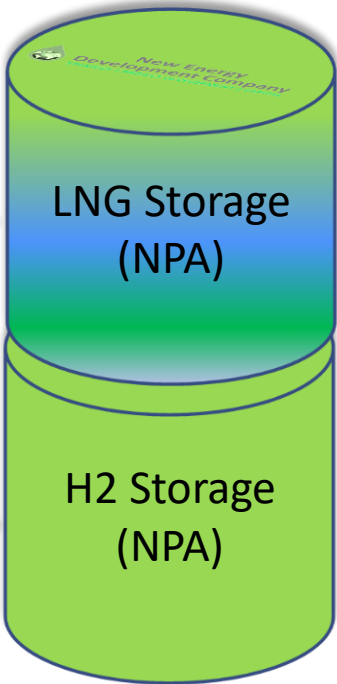
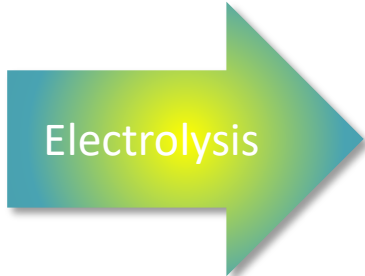
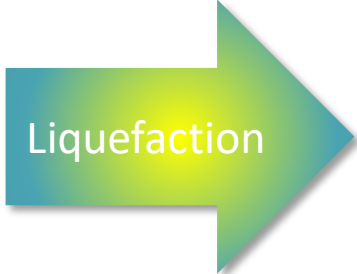
(74) Attorney, Agent, or Firm—Shinju Global IP Counselors, LLP

(57) ABSTRACT

A pre-manufactured natural gas delivery station is presented to a client that filters, measures, controls, pre-heats, pressure reduces, odorizes, and provides excess communication, provides excess power, and provides excess heat for a host site. The design is pre-approved by supply pipeline, end users and regulatory bodies. The final configuration is welded, assembled, wired, painted, tagged, and tested, at a factory site and then shipped to an installation site in accordance with customer's requirements. The station is commissioned, operators are trained and a three volume project DATA book is installed in the control room for documentation. The pre-manufactured natural gas delivery station can include a high pressure gas metering room and regulating room that can be selectively coupled to other prefabricated modular rooms or modules. Preferably, the other prefabricated modules include an odorant room, a heating room, an energy generation room and an electrical control and communications room. The equipment and control systems for each room is preinstalled and secured to the building structure in each of the different modules at the factory site. The energy generation room and the electrical control room allows the gas metering station to be operated by electrical energy from a local utility line or from an internal generator that is fueled by the gas being metered.

45 Claims, 7 Drawing Sheets







For release

HOUSTON, Texas, October 1, 2020 New Energy Development Company has signed a strategic partnership with CB&I Storage Solutions (CB&I), a business unit of McDermott International, which enhances New Energy Development Company's integrated green H2, RNG and renewable LNG delivery model.



"New Energy Development Company has brought order to the fragmented ESG LNG and hydrogen project development markets"

LNG | Hydrogen | Storage
Sustainable Investments
With GreenER™ technology

CB&I Storage Solutions – Global Leader in Hydrogen, LNG and RNG



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**CB&I
STORAGE
SOLUTIONS**

- **US: 50+ hydrogen projects facilities & components**
- **Globally: 200+ hydrogen & syngas plants**
- **Building the world's largest hydrogen storage facility**

International | Holland

● 1,099 m3 | Air Products
317 m3 | Air Products



2,146 m3 | Aetron
381 m3 | Aetron
751 m3 | Aetron
1,404 m3 | Aetron
28 m3 | Aetron
95 m3 | Aetron/NASA
1,404 m3 | Aetron/NASA
381 m3 | Linde Company
180 m3 | Douglas Aircraft

3,187 m3 | Army Corps of Engineers
1,597 m3 | Army Corps of Engineers

381 m3 | Rocketdyne Division of N.A.A.
2,794 m3 | Rocket Dyne
381 m3 | Rocket Dyne
2,105 m3 | Linde
180 m3 | Linde

949 m3 | Air Products

3,449 m3 | Catalytic Construction Co./
Space Nuclear Propulsion Office
533 m3 | Catalytic Constr.
95 m3 | USAEC
2,055 m3 | USAEC
362 m3 | Catalytic for AEC

11 m3 | Corps of Engineers for NASA

1,351 m3 | Praxair

218 m3 | Air Products

1,397 m3 | Air Products & Chemicals, Inc.

2,411 m3 | Praxair

3,203 m3 | APCI

279 m3 | Linde Co.

1,057 m3 | Praxair

2,015 m3 | Linde Division - Union Carbide Corp.

421 m3 | Air Reduction Company

1,404 m3 | NASA
3,449 m3 | NASA
317 m3 | NASA Plumbrook Station

1,597 m3 | NASA

31 m3 | Jones & Hardy

381 m3 | Kaminer Construction Corp. for NASA - MSFC

5,439 m3 | PMI/NASA

3,407 m3 | Raytheon Engineers and Constructors / McDonnell Douglas

2,445 m3 | Boeing/Raytheon

835 m3 | Launch Complex 39-B for Catalytic Const. Co.

5 m3 | Launch Complex 39-A for Catalytic Construction Company

716 m3 | Linde

1,428 m3 | Air Products/NASA

404 m3 | Pratt & Whitney

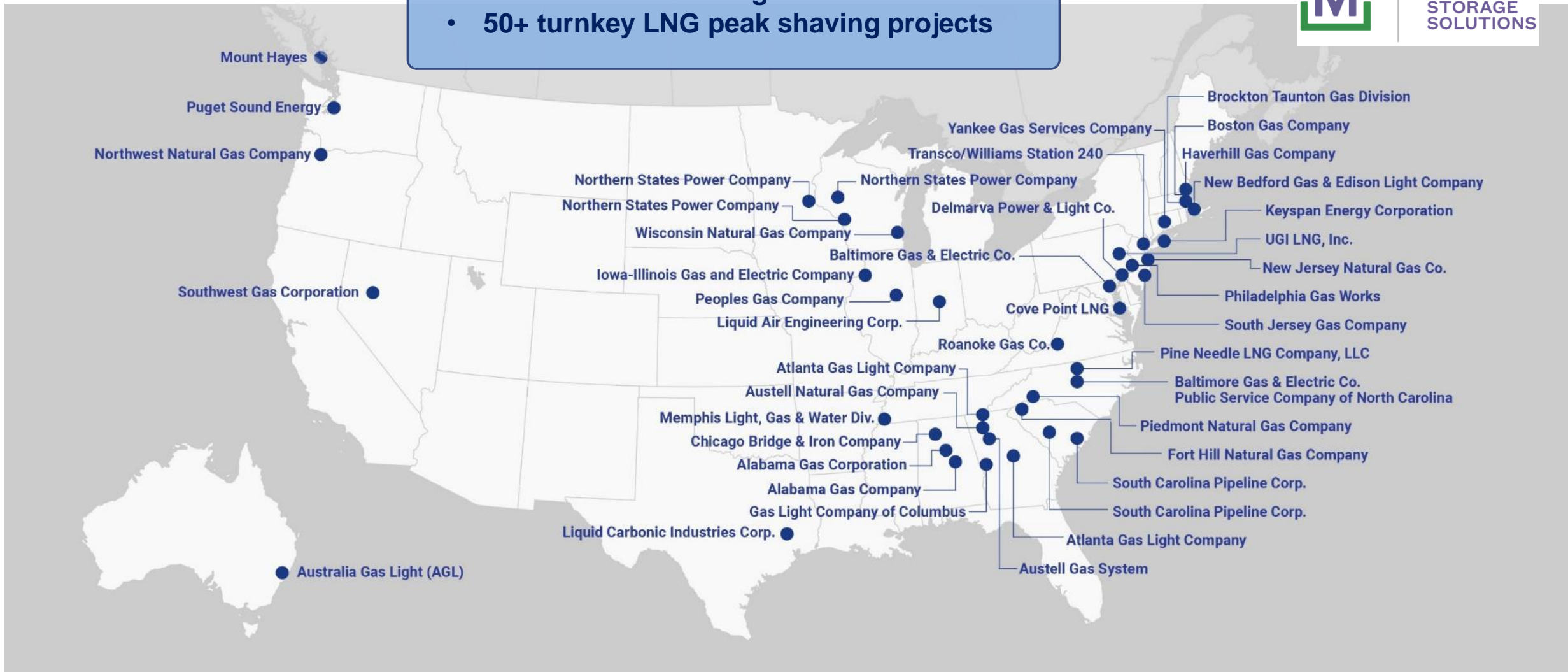
814 m3 | Air Products

362 m3 | Air Products/Government

525 m3 | Pratt & Whitney Aircraft



- Built 230+ LNG storage tanks and
- 50+ turnkey LNG peak shaving projects



New Energy and CB&I – Developing GUC LNG and RNG Facilities

- **Expanding LNG facility for sustainability**
- **Addition of anaerobic digestion**
 - 200,000 DTs/y of RNG
 - Reduce solids production by 40%
 - Less odor





Press Release: Effective 4-12-2021

New Energy Development Company

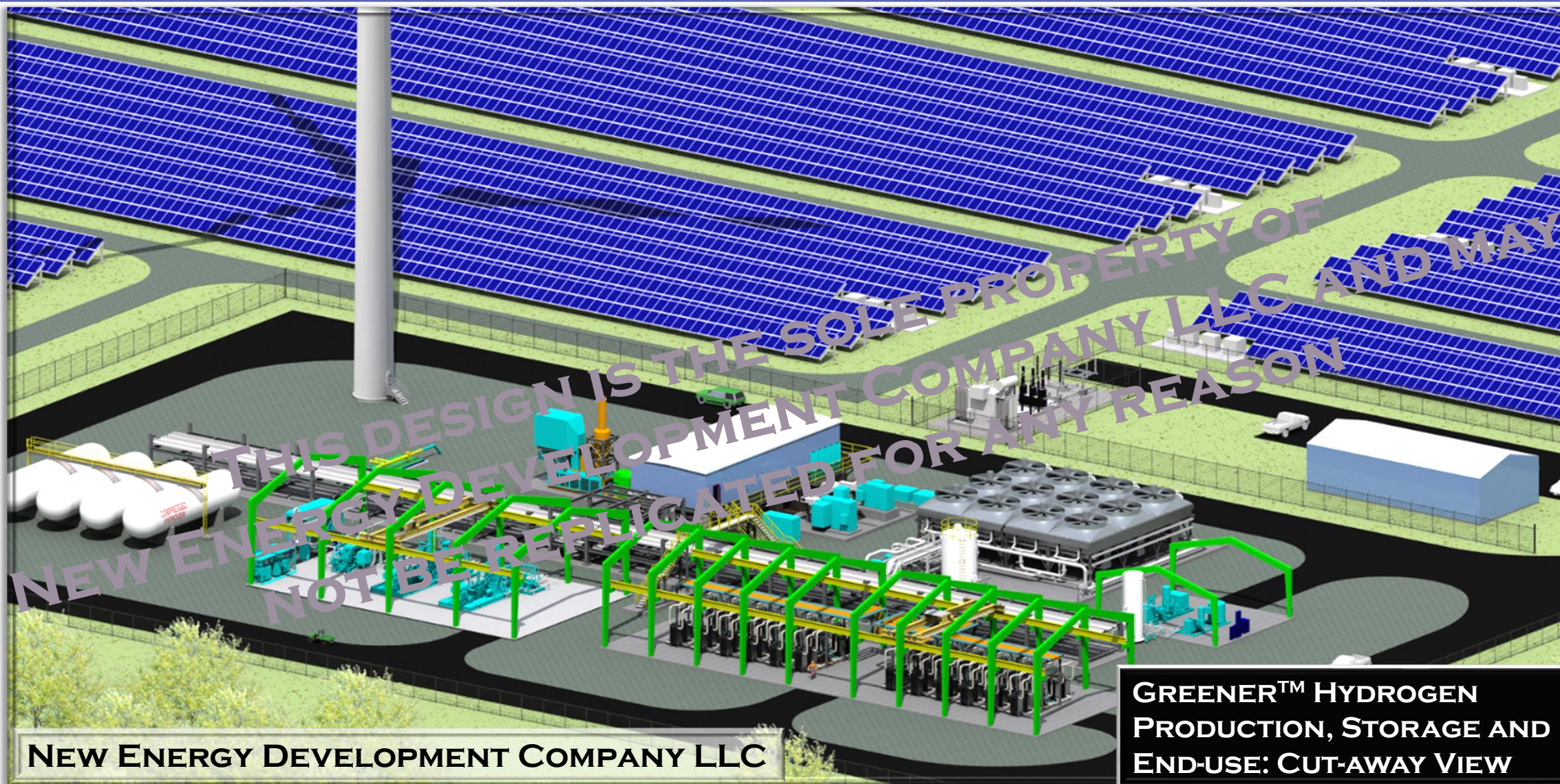
McDermott's CB&I Storage Solutions and New Energy Complete Engineering for Green Hydrogen Generation Facility

HOUSTON, April 12, 2021 /PRNewswire/ -- McDermott International, Ltd and New Energy Development Company LLC today announced the completion of engineering for two transformative 50-megawatt energy projects. Each modular, expandable hydrogen facility will produce nearly 24,000 kilograms per day of renewable hydrogen.

Completed Detailed Engineering on Two 50-MW Plants Engineering – GreenER™ Hydrogen



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NEW ENERGY DEVELOPMENT COMPANY LLC

**GREENER™ HYDROGEN
PRODUCTION, STORAGE AND
END-USE: CUT-AWAY VIEW**

228 globally planned hydrogen projects



Germany: Investing €8B+ in 62 large-scale H2 projects: “We’re making Germany a hydrogen country”**.

South Korea: Conglomerates including Hyundai in March announced \$38 billion in hydrogen-related investment by 2030.

Black Hills, Williams, Jonah Energy, Avangrid recently announced plans for green hydrogen production.

Xcel Energy: Currently plans to pilot an electrolysis system at its Prairie Island nuclear plant in Minnesota in 2022.

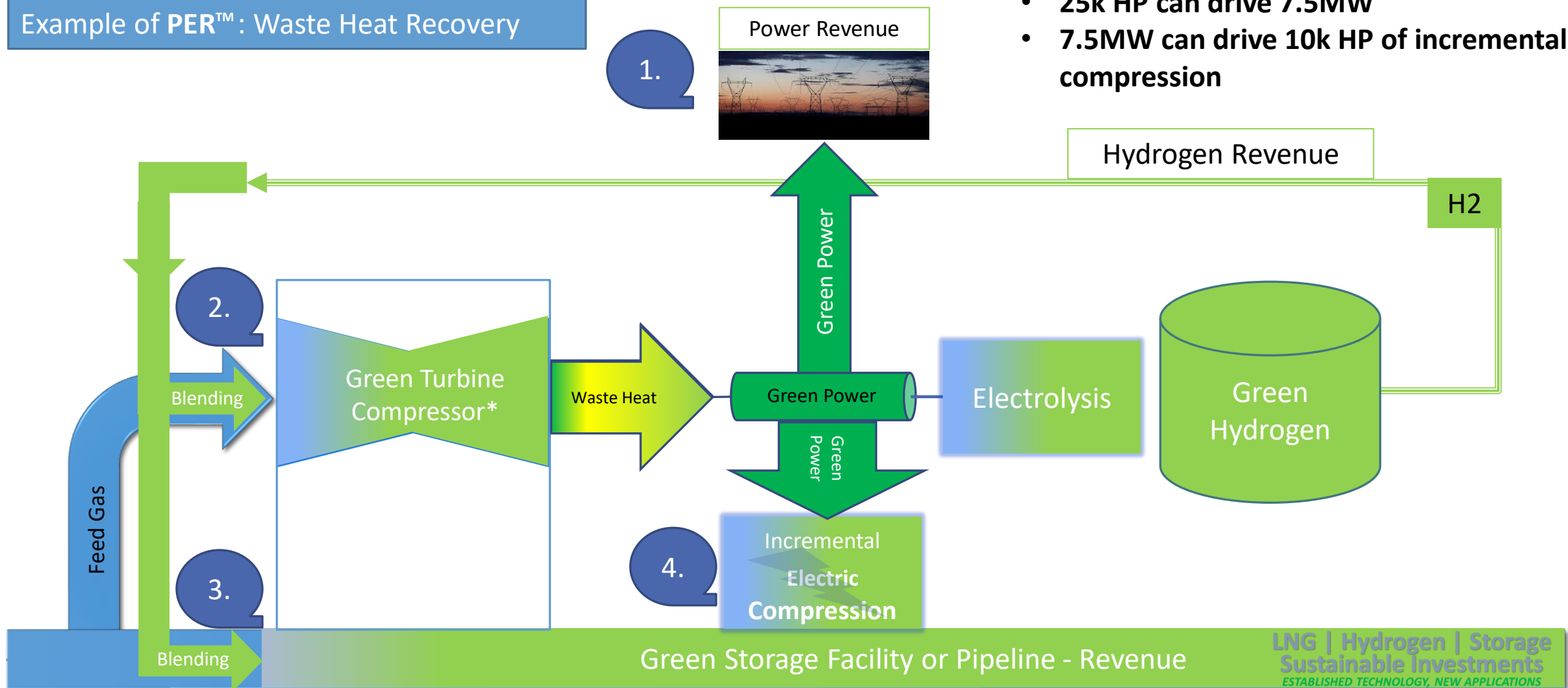
Enbridge Inc: Studying H2 production and blending 2% hydrogen into its gas distribution systems in Ontario, and has received approval to blend hydrogen in Quebec.

Dominion: Testing a 5% hydrogen blend in Utah and recently proposed a similar pilot in North Carolina.

GE: Almost every gas turbine used to produce power can burn fuels containing about 5% to 10% hydrogen.

Sempra’s first project will blend hydrogen in a mostly residential area that SoCalGas.... said Jawaad Malik, chief environmental officer.

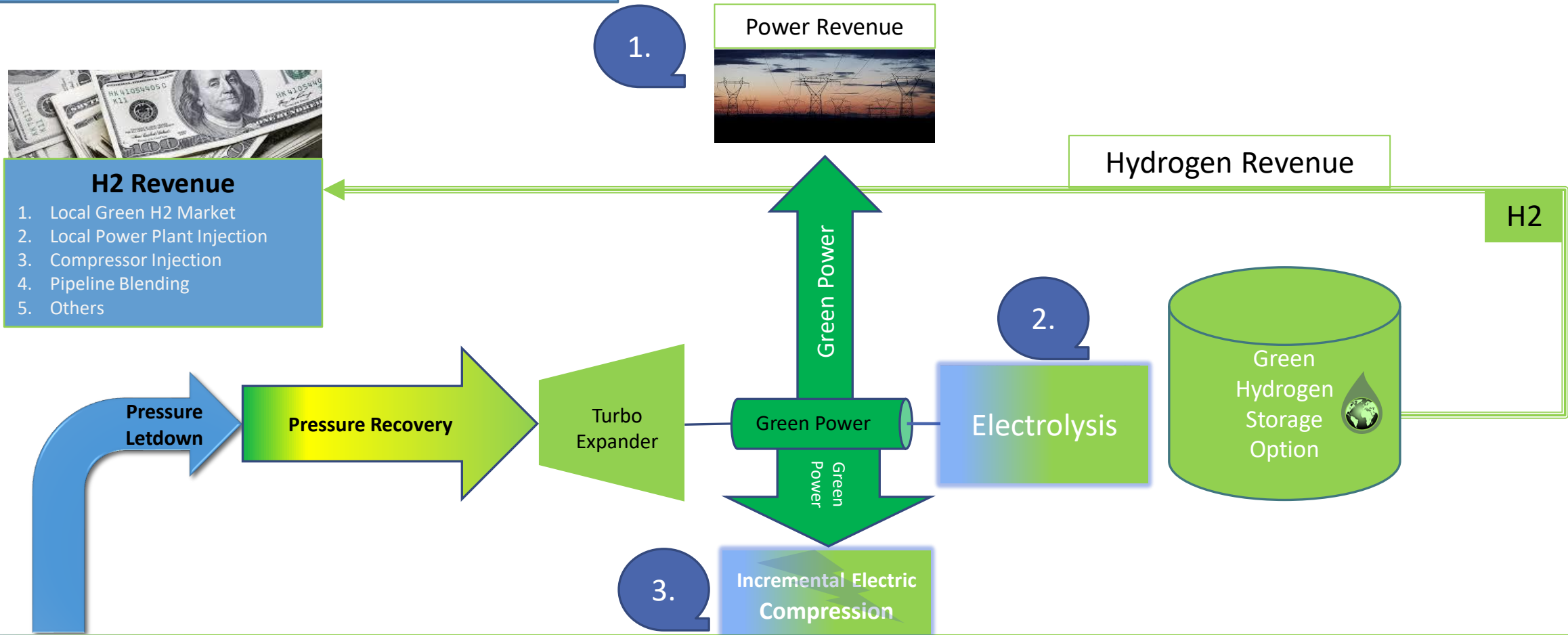
Example of PER™: Waste Heat Recovery



- 25k HP can drive 7.5MW
- 7.5MW can drive 10k HP of incremental compression

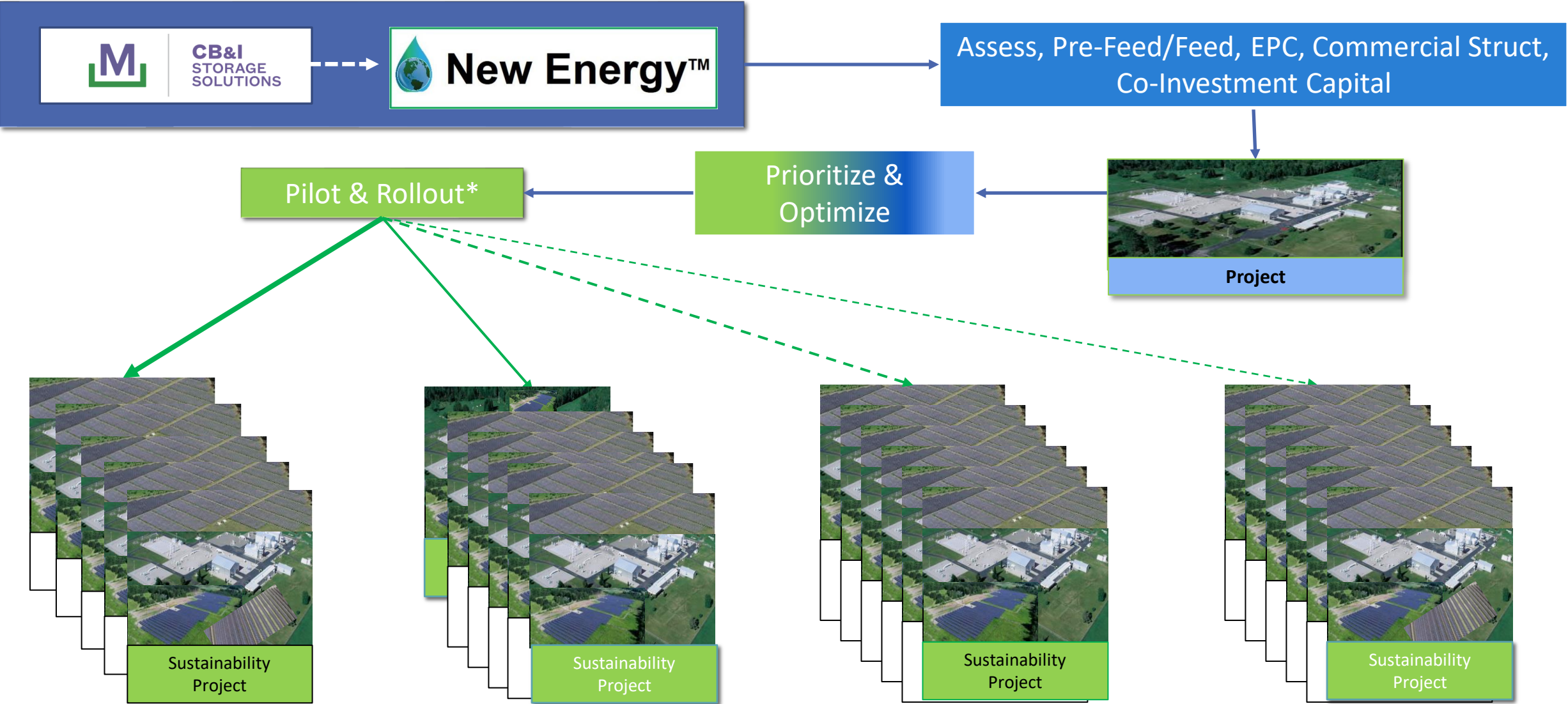


Example of PER™: Pressure Letdown Recovery



**New Energy CO₂ Choices: Grey H₂ or sequester CO₂ / methanate CO₂ CO_x+H₂ → CH₄+H₂O (GBH Enterprises)

Equipment Manufacturers are Calling New Energy™



*Fully subscribed assets with off-take contracts, renewable components

New Energy as ESG Strategic Development Partner with Clients



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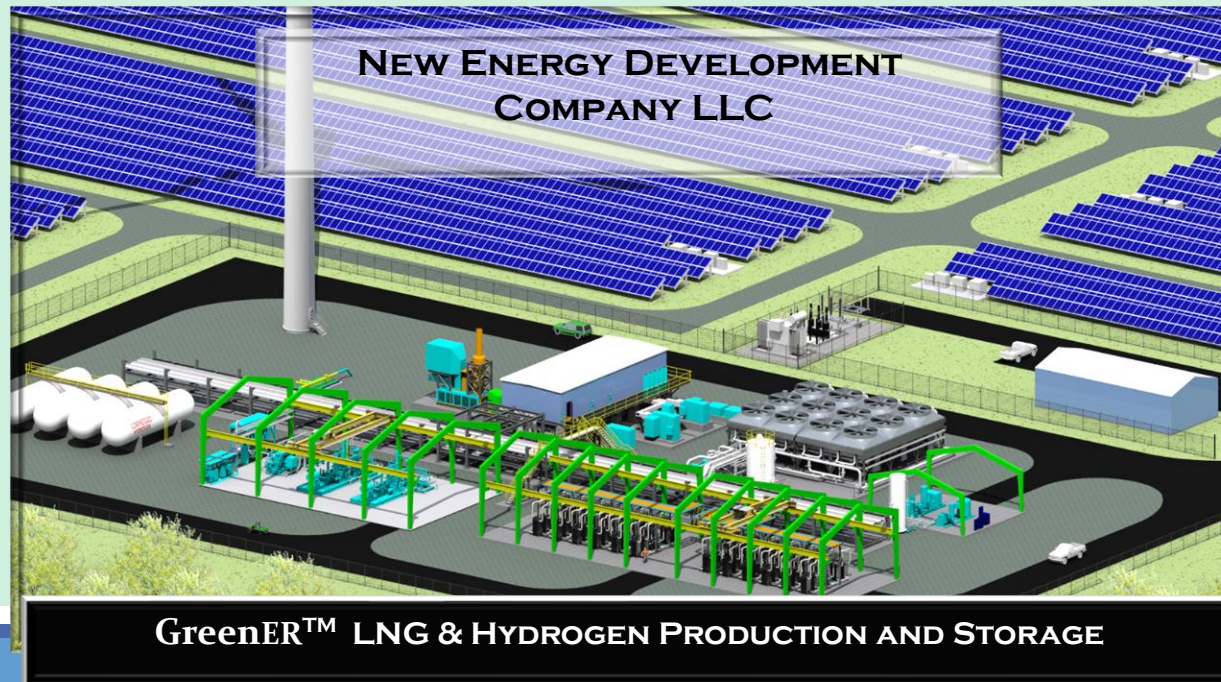
*Fully subscribed assets with off-take contracts, renewable components

www.newenergydev.com

Summary



- **ESG: Here to stay; the question is, how do we adapt?**
- **Why? Follow the Money: ESG drivers continue organizationally top-down, starting with investors and investment funds**
- **Future of our businesses continues to be integrating ESG components into energy projects, especially Sustainable LNG and Green Hydrogen**





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Your Green Hydrogen Development Partner

LNG | Hydrogen | Storage
Sustainable Investments
With GreenER™ technology