



# EMPOWERING COMMUNITIES, ENERGIZING FUTURES

**PROPOSAL FOR  
DEPLOYMENT OF A 250MW  
MOBILE POWER PLANT IN  
THE DOMINICAN REPUBLIC**



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# EXECUTIVE VISION

Geodyn Solutions, a leader in modular mobile power generation, proposes to partner with its statistical optimization partner to deploy a 250MW LNG-based mobile power plant in the Dominican Republic. This project provides a flexible, rapid-deployment solution to stabilize the grid, meet rising electricity demand, and support industrial and tourism-driven growth.

The configuration integrates advanced modular turbine systems with a heat recovery steam turbine (HRST) and an Organic Rankine Cycle (ORC) for waste heat utilization. This boosts efficiency to ~58%, ensuring fuel savings and emission reductions.

The project assumes a PPA tariff of \$0.17/kWh with a 15-year lifespan, delivering strong returns, rapid payback, and long-term profitability.



# PROJECT OVERVIEW

- Base Capacity : ~150 MW modular turbine modules.
- Heat Recovery (HRST) : +75 MW.
- ORC Waste Heat Recovery : +25 MW.
- Total Net Capacity : 250 MW.

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## **ANNUAL PERFORMANCE** (70% CAPACITY FACTOR):

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- Output = 1.533 million MWh.
- Revenue = \$260.6 million.



# CAPITAL EXPENDITURE (CAPEX) BREAKDOWN (~\$414M)

• Turbine & Generation Modules	: \$210M
• HRST System	: \$60M
• ORC Waste Heat Recovery	: \$30M
• Balance of Plant	: \$60M
• Civil Works & Foundations	: \$20M
• Electrical Systems & Grid Interconnection	: \$25M
• Installation & Commissioning	: \$45M
• Engineering, Permitting & Project Management	: \$30M
• Contingency (20%)	: \$69M
• Grand Total	: \$414M





## **OPERATING EXPENDITURE (OPEX)**

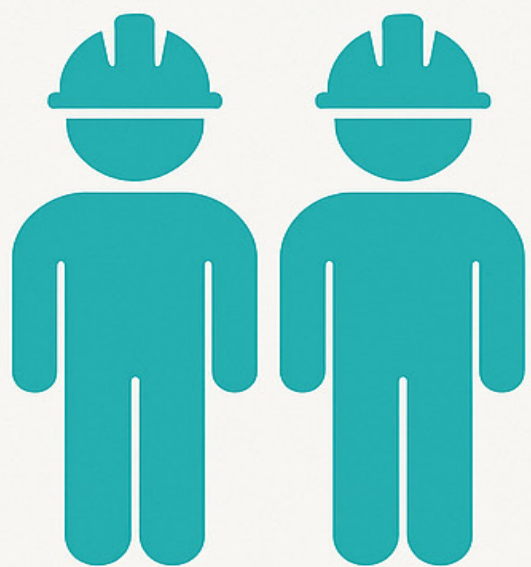
Fuel : ~\$13/MWh  
Maintenance : \$8–12M/year  
Labor & Training : ~\$5M/year  
Insurance & Admin : ~\$5M/year  
Total Opex : ~\$38M/year

## **JOB CREATION & SOCIAL IMPACT**

Construction : 800–1,000 jobs  
Permanent Operations : 130–160 jobs  
50%+ of workforce sourced locally

## **FINANCIAL PERFORMANCE**

Annual Revenue : \$260.6M  
Annual Opex : ~\$38M  
Net Annual Profit : ~\$213M  
ROI : ~55% annually  
Payback Period : ~1.9 years (2.3 years discounted)  
15-Year Cumulative Net Profit : ~\$3.2B



# **JOB CREATION**

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**800–1,000**

**CONSTRUCTION**

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**130–160**

**OPERATIONS**

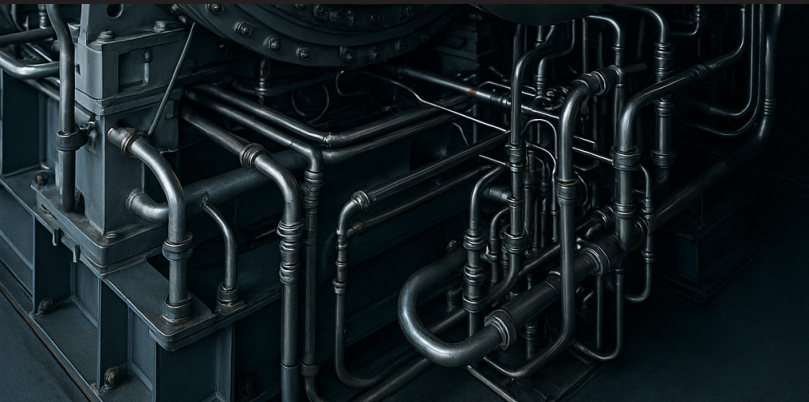


# ENVIRONMENTAL BENEFITS

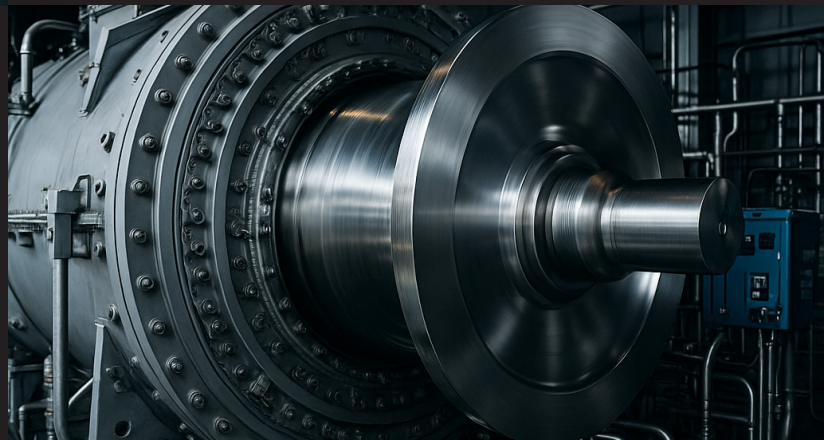
- **35% LESS FUEL PER MWH THAN SIMPLE-CYCLE BASELINES**



- **CO<sub>2</sub> EMISSIONS REDUCED BY ~37% PER MWH**



- **NO<sub>x</sub> REDUCED BY 80–90%, SO<sub>x</sub> NEARLY ELIMINATED**



- **CLOSED-LOOP COOLING MINIMIZES WATER USE**



HRSG & ORC SYSTEM · UTILIZING WASTE HEAT – BOOSTS EFFICIENCY 58%

**37%** LESS CO<sub>2</sub>

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**80–90%**  
REDUCTION IN NO<sub>x</sub>

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NEARLY  
ELIMINATED **SO<sub>x</sub>**

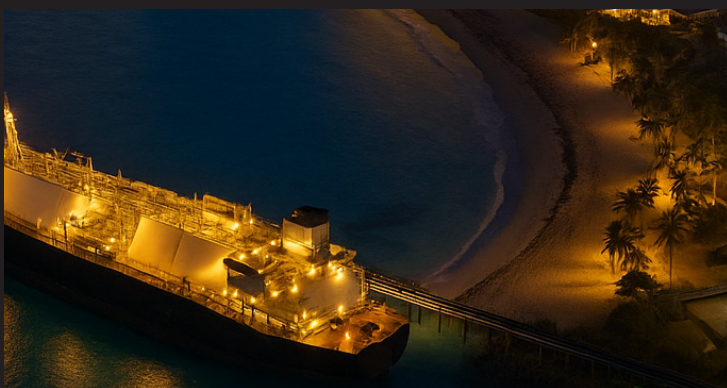
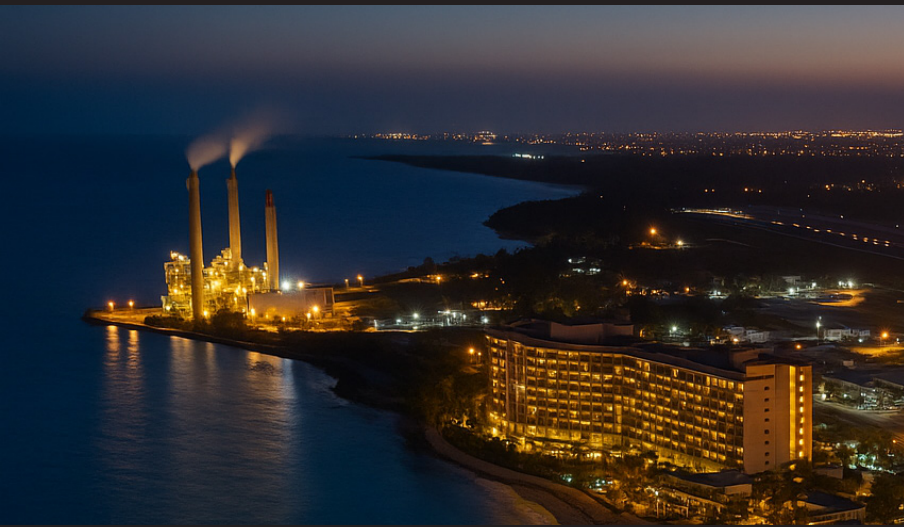
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COMPARED TO  
SIMPLE-CYCLE  
BASELINES



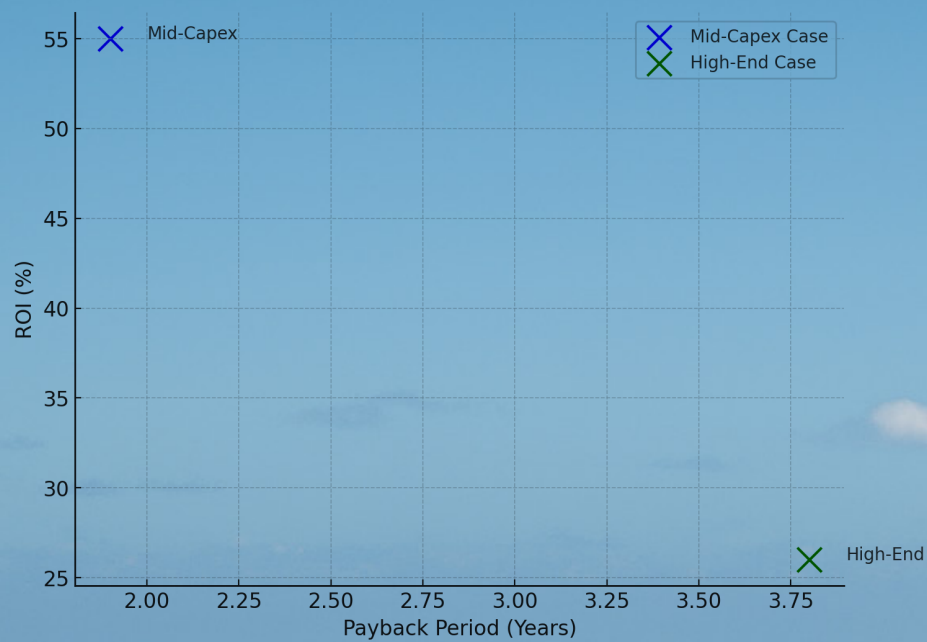
# DEPLOYMENT SCHEDULE

PHASE	TIMELINE
<b>PHASE 1</b> (0–60 DAYS)	<ul style="list-style-type: none"><li>• Site prep, permitting, LNG terminal tie-in.</li></ul>
<b>PHASE 2</b> (61–180 DAYS)	<ul style="list-style-type: none"><li>• Delivery, foundation, turbine &amp; HRST installation.</li></ul>
<b>PHASE 3</b> (181–270 DAYS)	<ul style="list-style-type: none"><li>• ORC integration, grid interconnection, commissioning.</li></ul>
<b>COD</b> (COMMERCIAL OPERATION DATE)	<ul style="list-style-type: none"><li>• ~5 months from NTP.</li></ul>





# ROI VS. PAYBACK COMPARISON

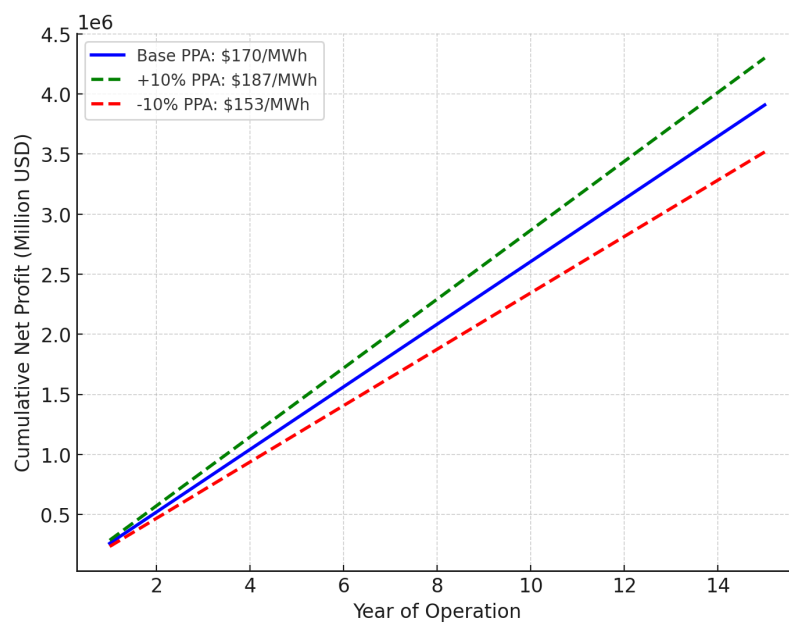




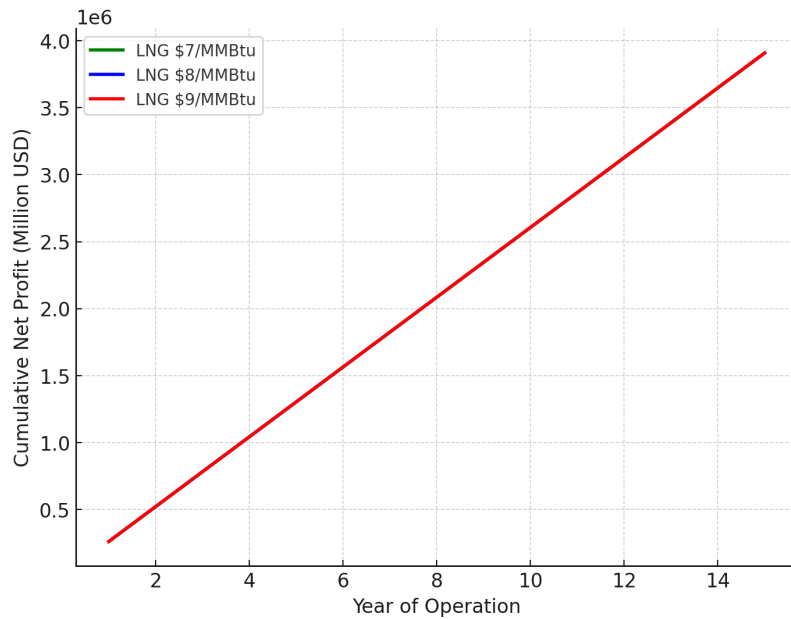
## 15-YEAR CUMULATIVE PROFIT CURVE



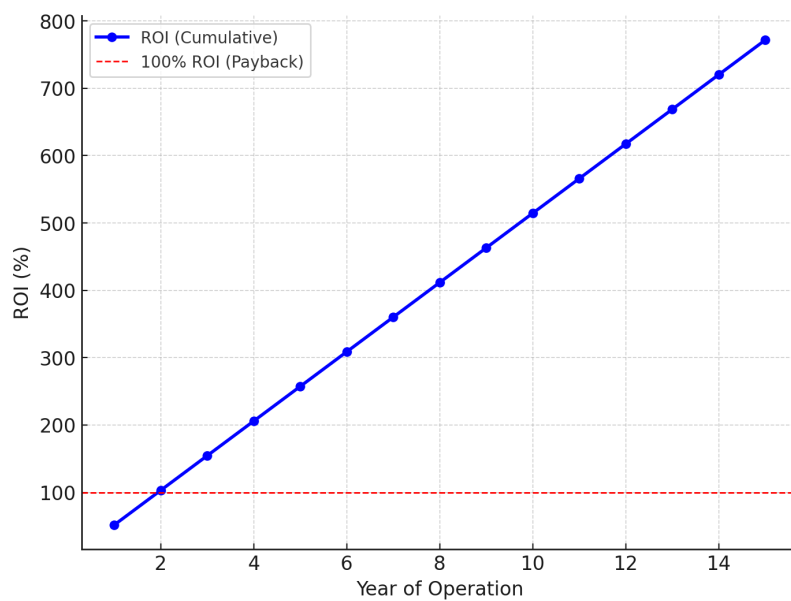
## SENSITIVITY ANALYSIS 15-YEAR CUMULATIVE PROFIT CURVE



## FUEL PRICE SENSITIVITY: 15-YEAR CUMULATIVE PROFIT CURVE



## 15-YEAR ROI CURVE (MID-CAPEX CASE)







## RECOMMENDATION

THE 250MW LNG MOBILE POWER PLANT OFFERS A STRONG BALANCE OF EFFICIENCY, PROFITABILITY, AND RAPID DEPLOYMENT. WITH A PAYBACK UNDER 2 YEARS, MORE THAN \$3B IN NET PROFITS OVER 15 YEARS, AND RESILIENCE UNDER VARIOUS MARKET CONDITIONS, IT IS THE MOST COMPETITIVE OPTION FOR IMMEDIATE IMPLEMENTATION IN THE DOMINICAN REPUBLIC.







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