

Downstream Process Energy Management Decreases Operating Expenses & Capital Expenditures

Need for Growth & Expansion The oil and gas sector Downstream Process encompasses the broadest array of applied energy technologies, and represent a significant energy management challenge.

The persistent quest for productivity gains while reducing emissions fees is the highest priority of our engineered solutions for the downstream sector.



Helio Energy Solutions (HES) understands the importance of the oil and gas industry's downstream process need for growth and expansion. The growing energy needs have also resulted in growing pressures on the environment, instituting ever changing emissions requirements. Energy policies and regulations cannot be conceived without taking into account the environment. From refineries and petrochemical plants to petroleum product distribution, retail outlets and natural gas distribution companies; each downstream process is being critically monitored to protect the environment while making demands on production.

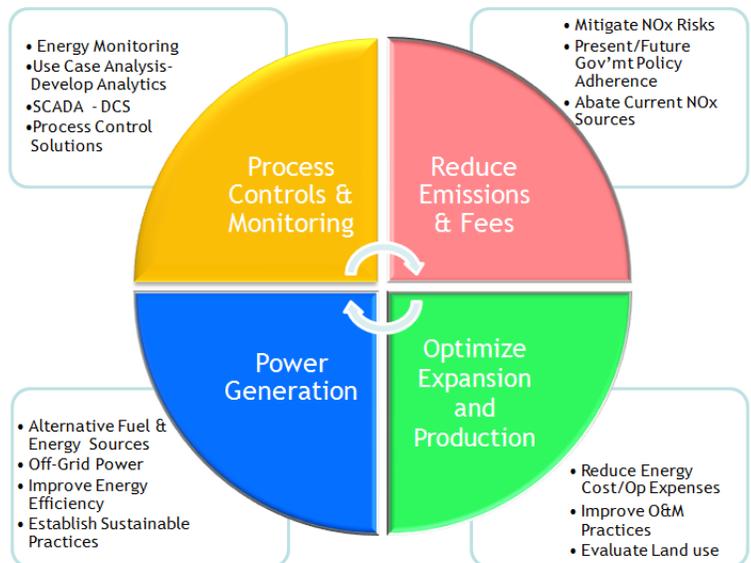
Planning and implementing growth while managing the impact of environmental regulatory policy that impact downstream process operations, are key to services HES provides.

Diverse Set of Industry Targeted Services We bring to the oil and gas downstream process a diverse set of industry targeted services designed to support your growth and expansion in an increasingly complex regulatory environment. Process controls and monitoring and distributed generation services are instrumental in optimizing production while managing the impact of emission fees.

Our energy management and engineering professionals understand the needed energy utilization improvements, required energy analytics, and provide production optimization targets. They are able to do this using an assessment of your current and future production processes and facilities. This cooperative engineering review with your staff is an invaluable, high level, succinct assessment of the projected project's financials, risks and goals.

Additional Services:

- Off-Grid solar systems
- Assessments—Audits
- Energy monitoring
- Energy analytics
- Telemetry
- SCADA
- Solar arrays



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Cap & Trade In January 2011 California Assembly Bill 32 (AB32) mandates a reduction in California's GHG (CO₂) emissions to 1990 levels by 2020 and calls for an 80 percent reduction from 1990 levels by 2050. This Scoping Plan includes adopting measures of the Low Carbon Fuel Standard and the Pavley Vehicle Standards to address 40 percent of its overall goals and is working on more than 20 additional measures, such as the Industrial Audit process and a cap-and-trade system. Enforcement is by CARB, where enforcement of NO_x remains at the regional level such as the San Joaquin Valley Air Pollution Control District. Emission Fee structures are also changing.

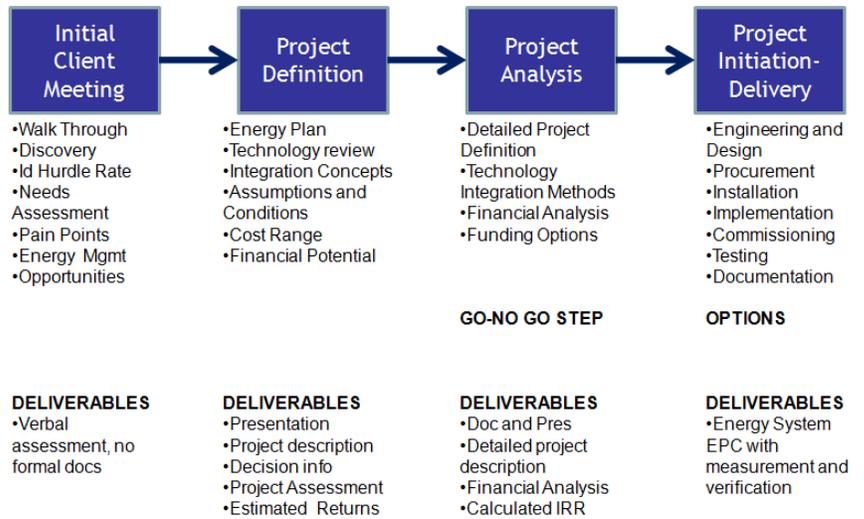
Compliance and Fee Reduction Services

- AB 32 audits and compliance programs
- Develop Energy Efficiency and other CO₂ reduction programs
- Proactively respond and comply to Agency audits
- Mitigate NO_x and CO₂ Risks
- Support environmental policy adherence
- NO_x and CO₂ emissions abatement and reduction

Decreasing OPEX and CAPEX are Primary Goals Reducing emissions fees while supporting operational growth and expansion through management of operations expenses (OPEX) and capital expenditures is our primary goal. To accomplish these goals, we need to understand your current processes, energy use and emissions fee structure. We will choose specific services and projects specially targeted to provide the cost reductions to meet your strategic goals.

Planning is Key Planning is key to defining reductions in operation expenses and capital expenditures. To get the most from your energy dollars and as a first step toward indentifying the energy projects, you need solid information from energy professionals about your facility. After the initial meeting, the Project Definition stage focuses specifically on strategic energy goals and includes a review of your CAPEX projects and defines the energy project(s) that best meet your energy reduction / production, emissions reduction and financial goals.

- Key Benefits:**
- Fees Reduction
 - Improved ROI
 - Lower LCOE
 - Reduced Energy Cost
 - Improved Production
 - Plant Expansion
 - CAPEX Evaluations
 - OPEX Reduction



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