



PROVIDING ENERGY SECURITY TO THE BEAUFORT-DELTA

March 2024

AGENDA

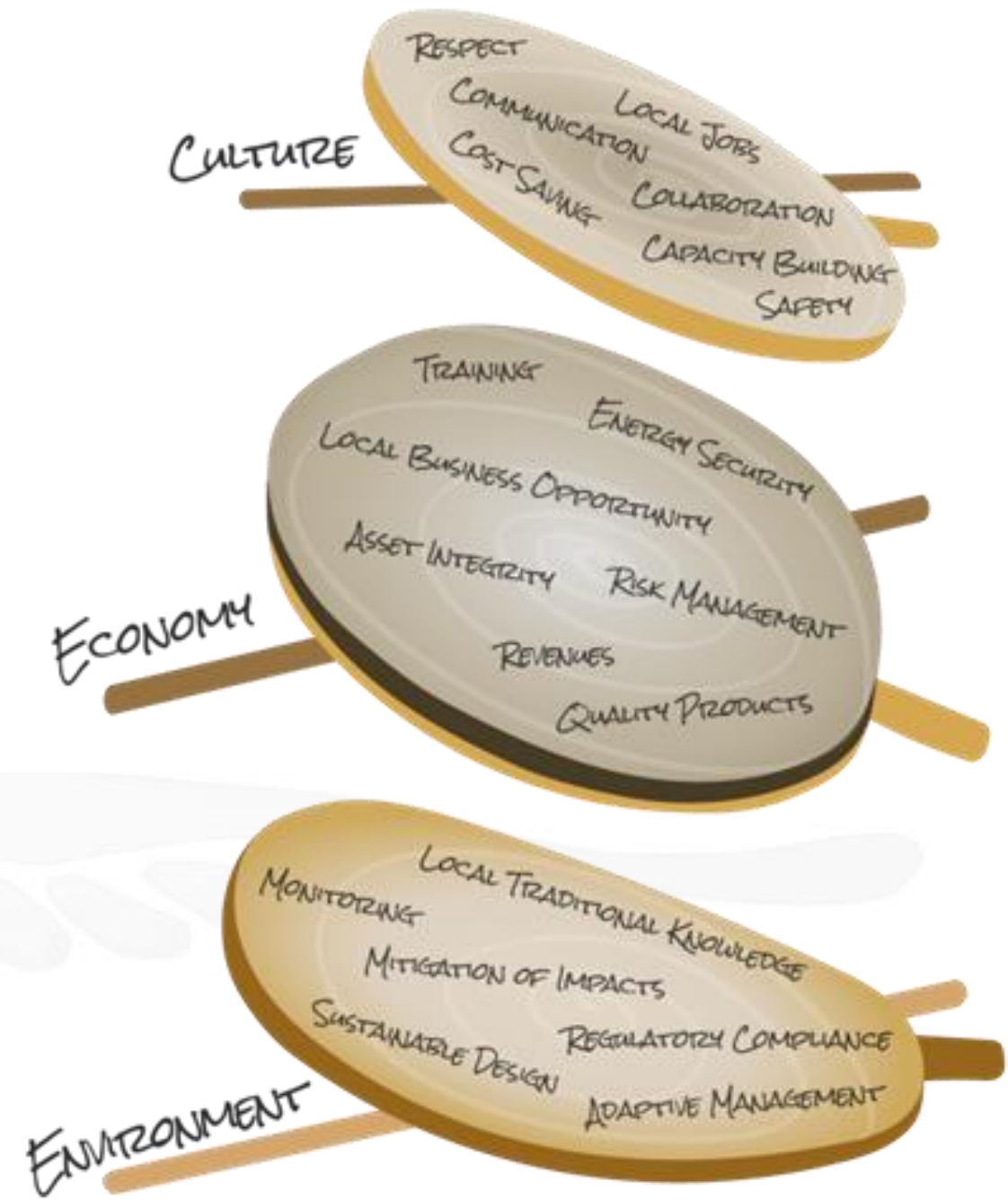
- ▶ IESP Overview
- ▶ Project Successes
- ▶ Permitting
- ▶ Environmental Protection
- ▶ Sump Remediation
- ▶ Early Site Works
- ▶ Well Workover
- ▶ Energy Facility
- ▶ Project Schedule & Commercial
- ▶ Integrated Management System
- ▶ Jobs and Benefits
- ▶ Project Next Steps



M-18 Wellhead – Summer 2022

PROJECT OVERVIEW

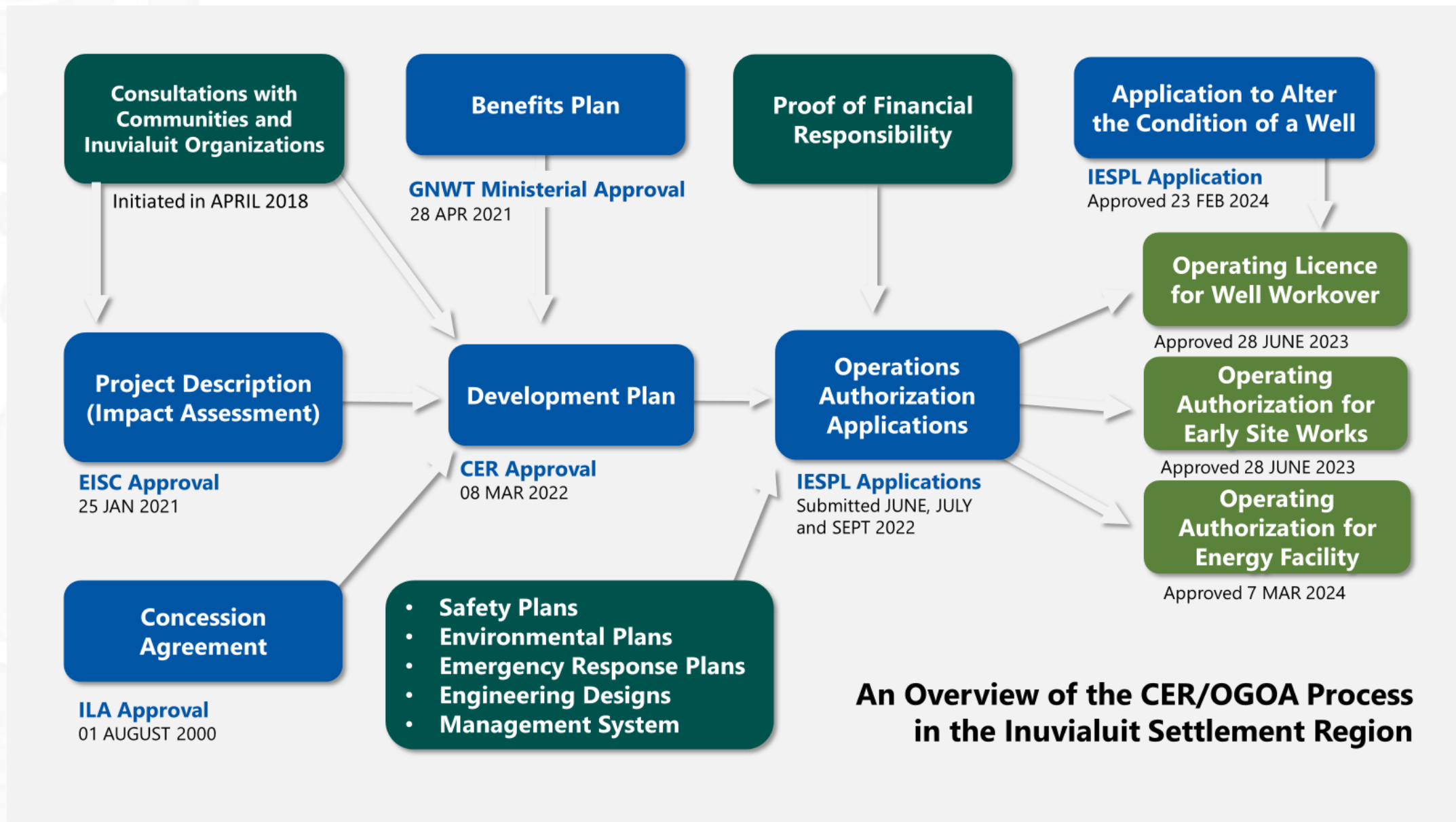
- ▶ Energy Security for the Region!
- ▶ A one of a kind energy project where Indigenous people own the resource, the land and the facilities.
- ▶ All natural gas, propane, and diesel demand in the ISR can be serviced from M-18.
- ▶ M-18 will produce for 50+ years based on the current energy demands of the ISR.
- ▶ Significant energy cost reduction for households and businesses in the region.



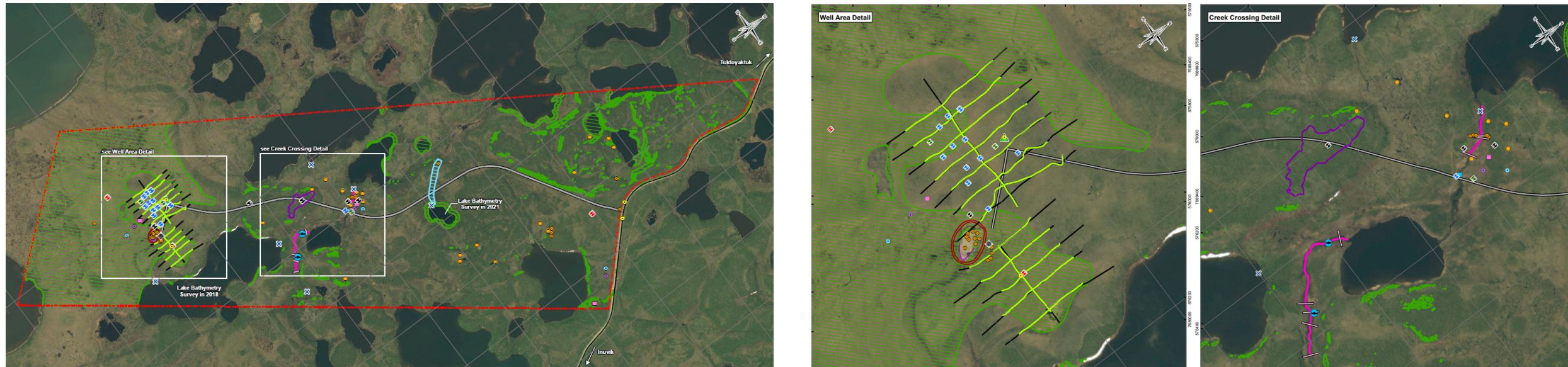
PROJECT SUCCESS TO DATE

- ▶ Project discussions began early with the potential of the ITH as a transport route. Over 100 community leadership meetings have taken place regarding the IESP since Spring 2020.
- ▶ The Environmental Impact Screening Committee (EISC) approved the project on Jan. 25, 2021.
- ▶ The Canada Energy Regulator (CER) approved the Development Plan on March 8, 2022.
- ▶ The M-18 drilling sump was remediated in the winter of 2021-22.
- ▶ Over \$20 million in local business contracts have been awarded, and over 70 Inuvialuit beneficiaries and Gwich'in have been employed to date.
- ▶ Officially acquired the M-18 asset from CNRL and Suncor on July 13, 2022.
- ▶ Submission of three CER Operations Applications between June 24, 2022, and Sept. 30, 2022. Two of three applications were approved on June 28, 2023, and the 3rd application was approved on March 7, 2024.
- ▶ Regular environmental and wildlife monitoring plans have been established and implemented at the IESP site.
- ▶ Draft commercial contracts for M-18 product offtake and bank financing are in negotiation.
- ▶ A world class Health, Safety, Security, Environment, and Quality Integrated Management System has been developed for the construction and long-term operations of the IESP.
- ▶ IESP all season road construction began in October 2023, bridge construction began in February 2024, and the M-18 well workover began at the end of February 2024.

PERMITTING PROCESS

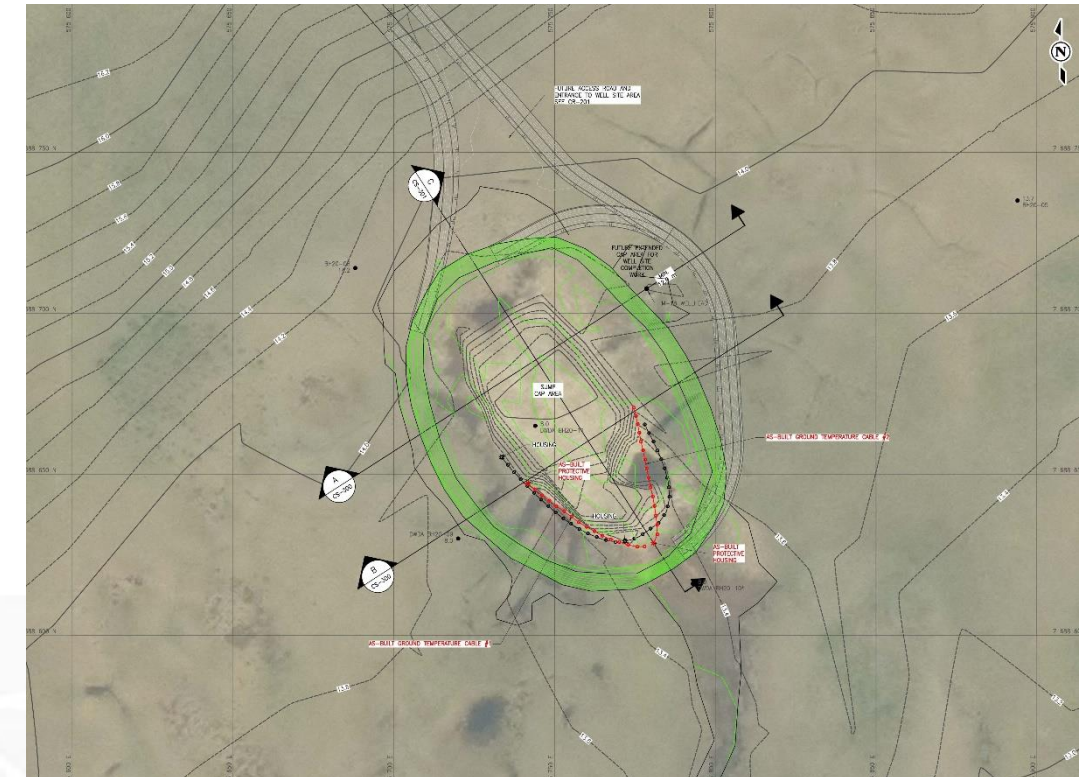


IESP SITE ASSESSMENTS



- ▶ 2018: Initial Environmental Assessment: Wildlife, Lakes and Streams, Fish, Surface Geology, Terrain, Vegetation, Historical and Traditional Land Use.
- ▶ 2020: Permafrost and Route Assessment: Geotechnical Drilling Program.
- ▶ 2021-22: Baseline Assessments: Air, Noise, Weather, Water, Fish, Bear Den Surveys, Archaeological Field Studies, and Ground Temperature Monitoring.
- ▶ 2022: Pad Location Assessment: Geophysical survey and Geotechnical Drilling Programs. Ongoing Monitoring.

SUMP AND WELL – JUNE 2021



Sump Cap and Well Pad Plan

Abandoned Drilling Sump and M-18 Wellhead

SUMP REMEDIATION – 2022



Remediated M-18 Drilling Waste Sump



Sump Cap: Ground Temperature Cable

PRE-EARLY SITE WORKS (ESW)



Access Trail Approaching Future Energy Facility Site and M-18
Needed for Access to M-18 and for Sump Remediation



Creek Crossing at Mid-Point of IESP Access Road
Future Location of Single Span Bridge – Community Commitment

ESW CONSTRUCTION (OCTOBER)



Access Road Construction Beginning
at the Inuvik to Tuktoyaktuk Highway

Over 70 Inuvialuit and Gwich'in
Employed

ESW CONSTRUCTION (NOVEMBER)



2nd Lift, M-18 Access Road

Material Spreading, SW Side of Creek



ESW CONSTRUCTION (DECEMBER)



Clearing Sump Cap Pad



Hill Construction Looking West

ESW CONSTRUCTION (DECEMBER)



Energy Facility Pad Construction



ESW CONSTRUCTION (JANUARY)



Bridge Area / Unnamed Creek Crossing



Packing Material at the Energy Facility Pad

ESW CONSTRUCTION (FEBRUARY)



Bridge Pile Installation



Culvert Installation

ESW CONSTRUCTION (MARCH)

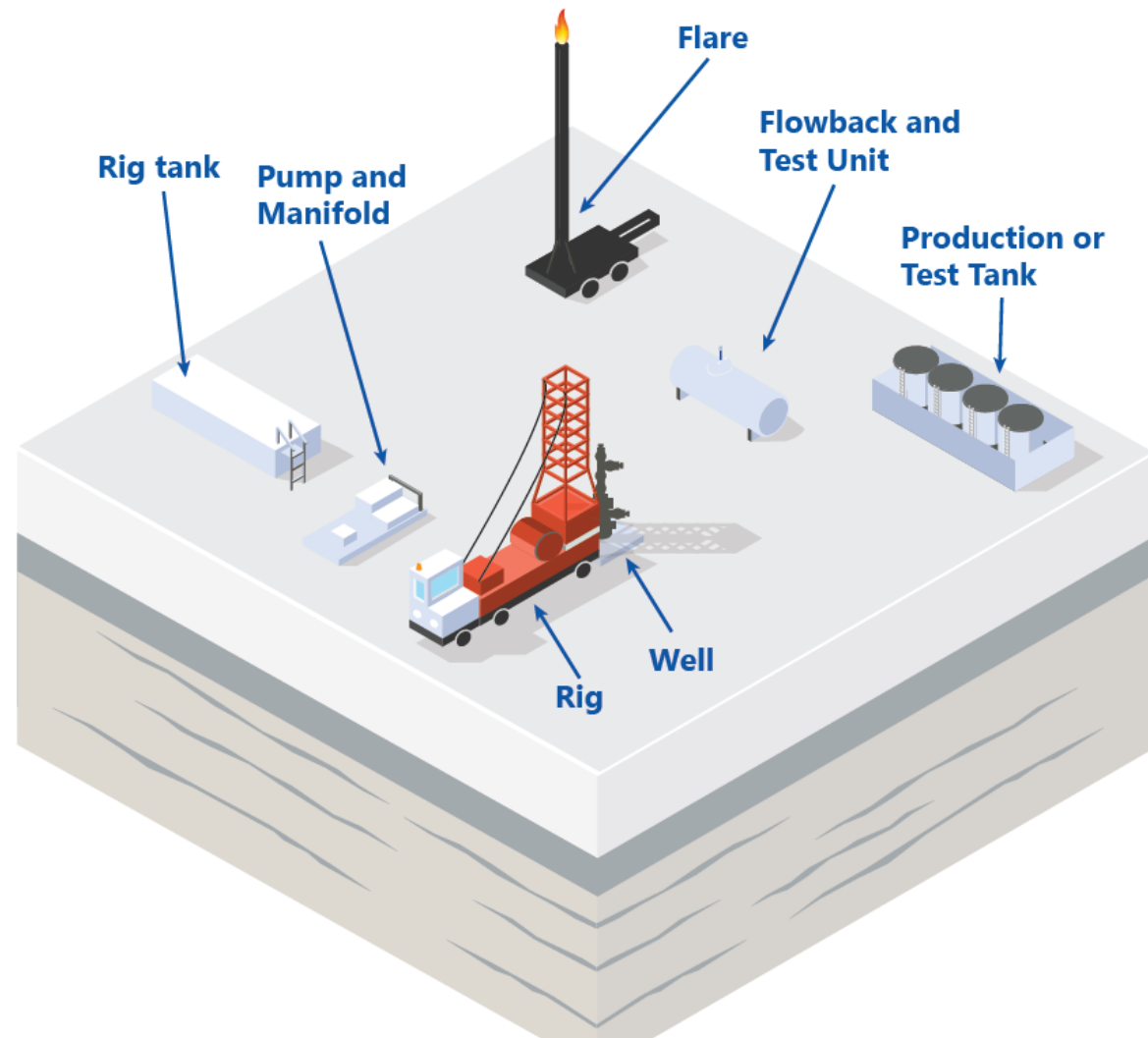


Bridge Construction

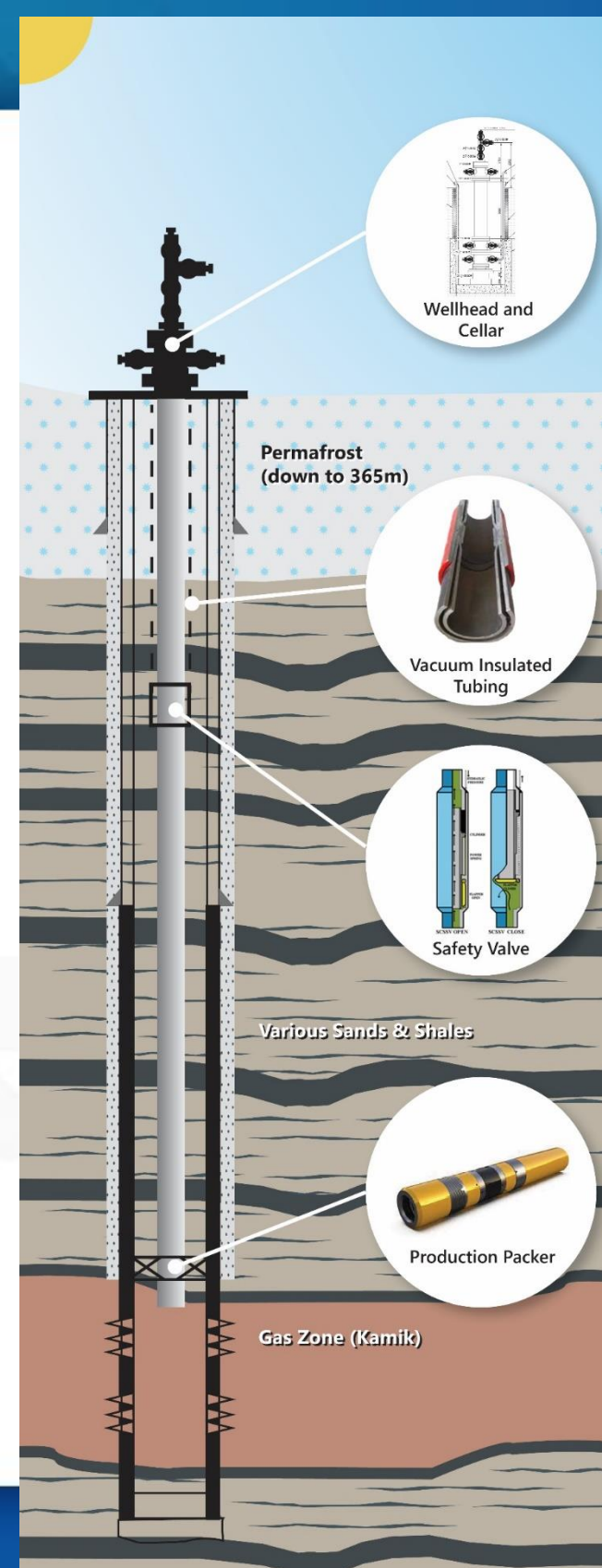
WELL WORKOVER PLAN

- ▶ Move in the equipment, set up the service rig and install and test the BOP. The BOPs are just a back up to control the well – the fluids in the well and the tools used will keep the gas from entering the steel casing. Snubbing will be used for drilling the bridge plugs.
- ▶ Circulate the diesel fuel out of the well and replace it with heavy salt water. The pressure from the salt water will control the gas in the formation while we work on the well.
- ▶ Inspect the existing casing to be sure it is in good condition.
- ▶ Drill out the cement plug in the bottom of the well that was used to suspend it for the last 20 years.
- ▶ Install the packer with a plug in it (This will seal the well to keep everything safe while we do the rest of the work).
- ▶ Install the tubing to carry the gas, the vacuum insulated tubing to protect the permafrost, and a sub-surface safety valve to shut off the flow of gas in case of emergency.
- ▶ Remove the BOP and install the wellhead – pressure test everything to be sure there are no leaks.
- ▶ Flow the well to clean up any salt water that flowed into the formation (a small amount of gas will be flared during this time).
- ▶ Shut in the well and install temporary plugs to keep the well safe until it is ready to produce to the Energy Facility.
- ▶ All wastes to be disposed at licensed facilities suitable to the waste. No pits, sumps or landfills.

WELL WORKOVER



Well Workover Equipment Setup



M-18 Downhole Equipment

WELL CELLAR (JANUARY)



WELL WORKOVER



Preparing to Remove the M-18 Wellhead

March 2, 2024



Casing Stump Without Wellhead

March 2, 2024

WELL WORKOVER



Wellhead Extension – March 3, 2024



Rig Standing with Work String in Position
March 7, 2024





WELL WORKOVER

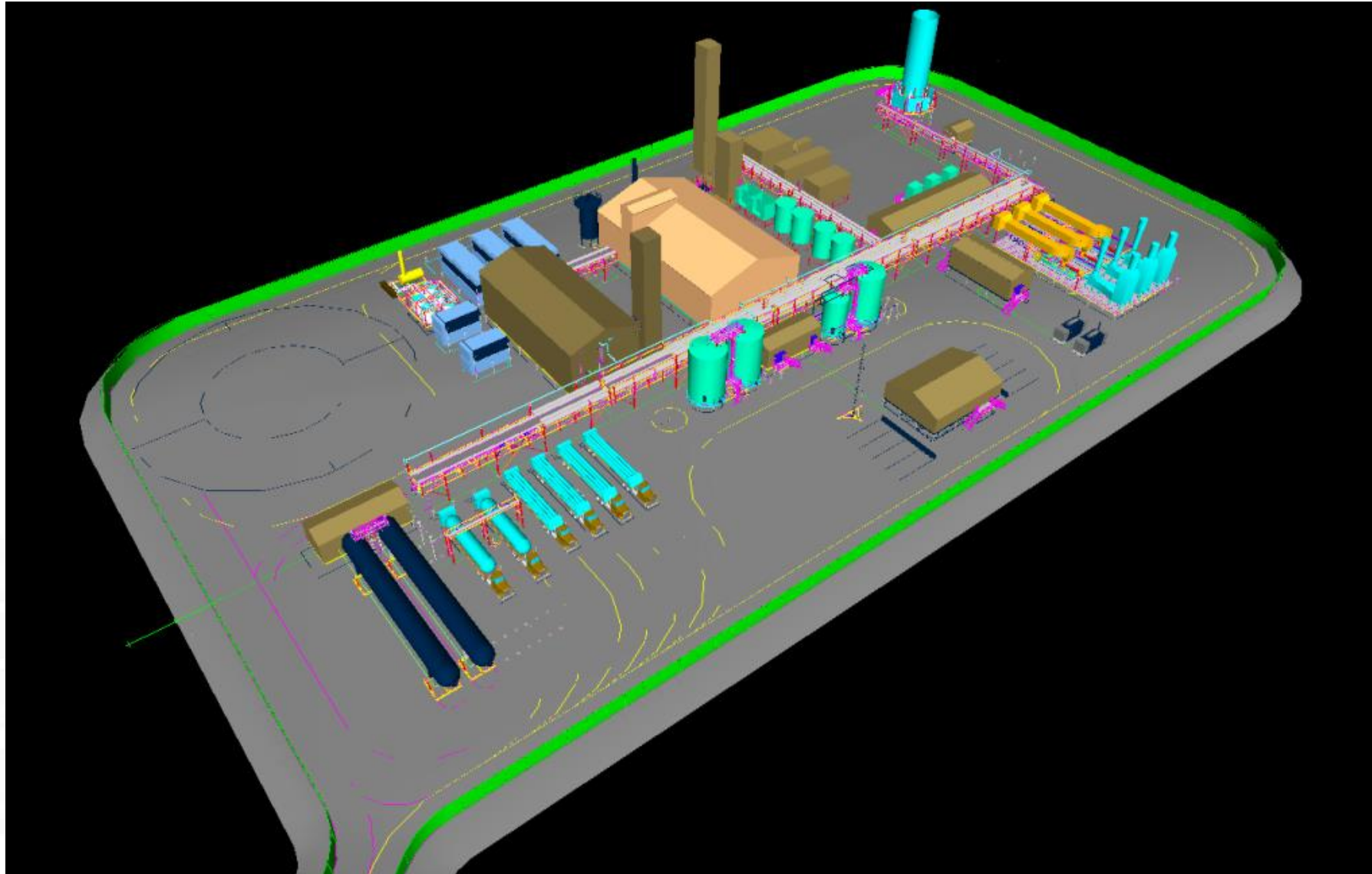


Running In Hole – March 8, 2024



Snubbing Ring-In - March 9, 2024

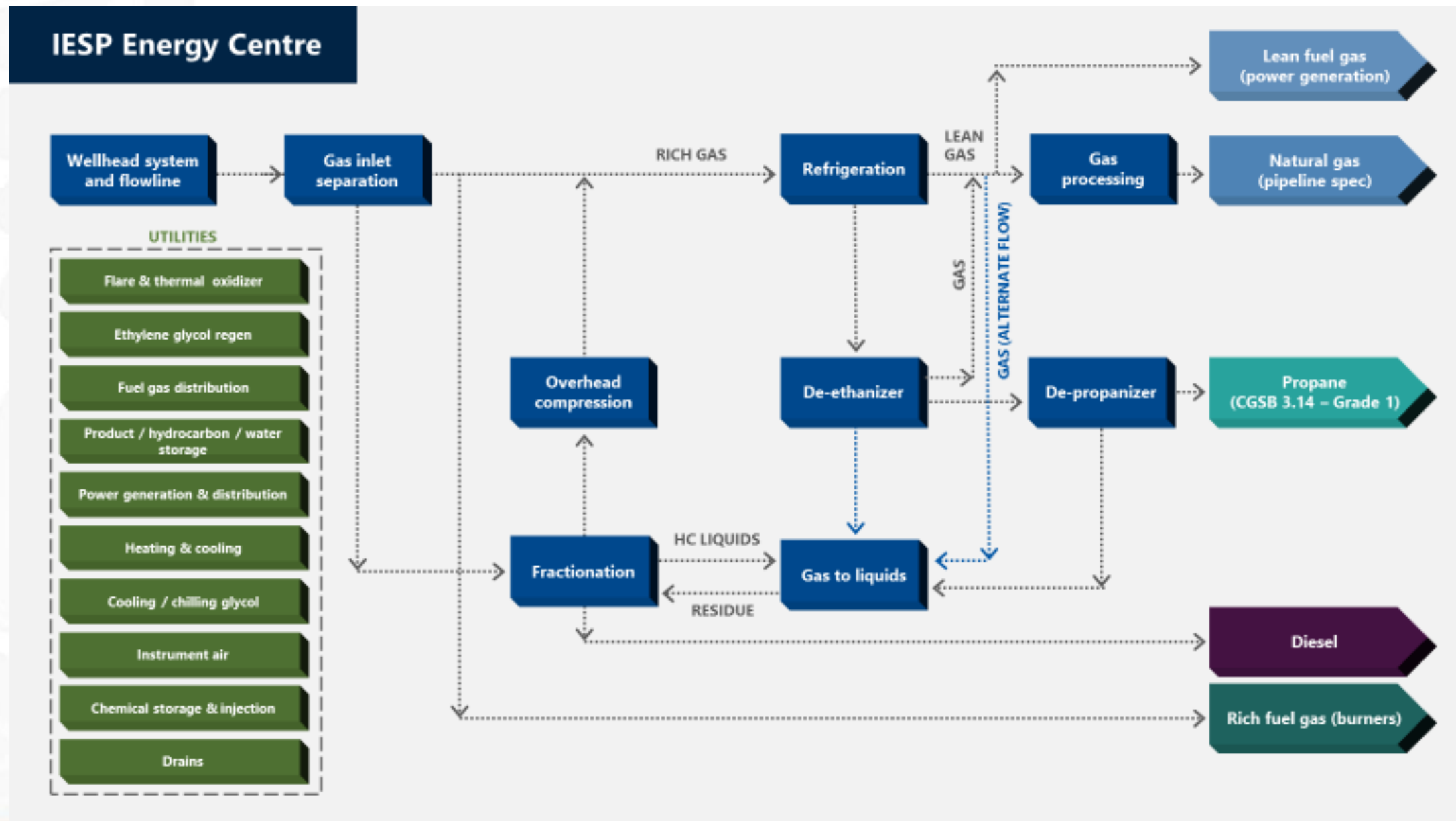
ENERGY FACILITY DESIGN



- ▶ Engineering design is nearly complete.
- ▶ Overall project execution plan being confirmed.
- ▶ Majority of facility will be ocean barged from the west coast or Gulf coast of North America.

Conceptual Layout of the IESP Energy Facility

PROCESS BLOCK FLOW DIAGRAM



PROJECT SCHEDULE & COMMERCIAL

2024

Q1-Q2 – Complete engineering design
Q1 – Complete the access road construction
Q1 – M-18 well workover
Q2-Q4 – Order major equipment for the Energy Facility and begin module fabrication in southern Canada and some international
Q4 – Complete Energy Facility civil construction

2025

Q1-Q2 – Complete equipment and module fabrication
Q2-Q3 – Shipment of Energy Facility modules to IESP site (winter road/summer barge)
Q3-Q4 – Assembly of Energy Facility modules
Q4 – Commissioning and start-up of the IESP Energy Facility

2026

Long-term operations begin

- ▶ Working to secure long-term fuel supply contracts with local utilities and fuel distributors.
- ▶ Cost of service model for pricing.
- ▶ Working to secure a \$100 million project financing arrangement for construction of the Energy Facility.
- ▶ Project funded by Inuvialuit equity to date.

INTEGRATED MANAGEMENT SYSTEM (IMS)

- ▶ A Management System is defined by ISO as a “set of inter-related or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives.”
- ▶ The NWT Oil and Gas Drilling and Production Regulations state that “the applicant for an authorization shall develop an effective management system that integrates operations and technical systems with the management of financial and human resources to ensure compliance with the Act and these regulations.”

OGDPR Section 5.(1)

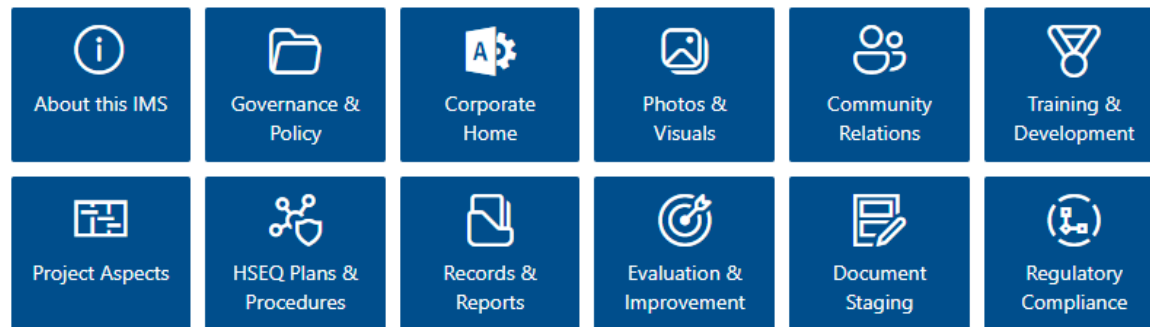
- ▶ The Management System must include 11 elements (as described in OGDPR Section 5) and “must be controlled and set out in a logical and systematic fashion to allow for ease of understanding and efficient implementation.”



Looking North From M-18, August 2018

THE IESP IMS

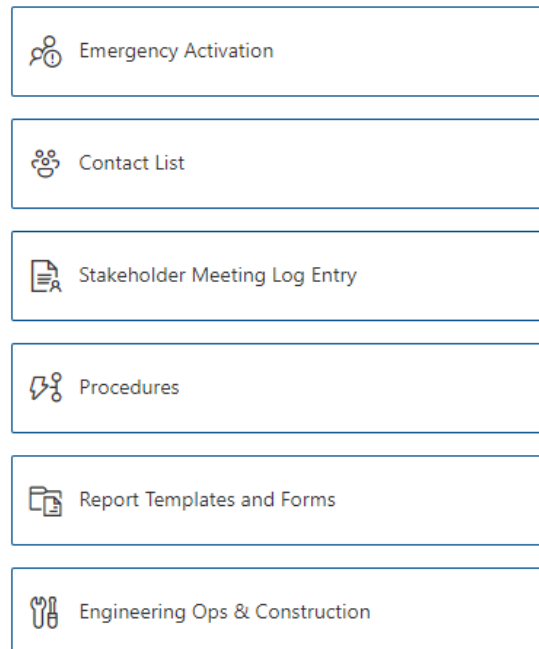
IESP Integrated Management System



Welcome to the Inuvialuit Energy Security Project (IESP) Integrated Management System (IMS) SharePoint Site!

The IMS is a regularly audited and reviewed system that is comprised of 12 key elements, based upon the Inuvialuit Final Agreement (IFA), government regulations, and the integration of five international standards.

Quick Links



The IESP IMS meets the requirements of:

- ▶ Inuvialuit Final Agreement
- ▶ Canada Energy Regulator
- ▶ NWT OGOA and Regulations
- ▶ ISO 9001:2015 (Quality Management Systems)
- ▶ ISO 14001:2015 (Environmental Management Systems)
- ▶ ISO 45001:2018 (Health and Safety Management Systems)
- ▶ ANSI/ASSE Z10-2012 (Occupational Health and Safety MS)
- ▶ CAN/CSA-Z246.2-14 (Emergency Preparedness and Response)

WHAT DOES THE IMS INCLUDE?

- ▶ HSSEQ Integration with Legal, Finance, HR, IT/IS, Marketing, Engineering and Procurement
- ▶ Tracking of compliance obligations, commitments, impacts and risks, policies and goals
- ▶ Monitoring Plans and Procedures
- ▶ Standardized templates and forms
- ▶ Document approval and staging process
- ▶ Repository of all photos, videos, maps, meeting records, reports, assessments, audits, etc.
- ▶ Training and Awareness – repository of approved training materials, links and records of training certificates
- ▶ Communication plans, current contact lists, and engagement records
- ▶ Governance structure and organization
- ▶ Commitment Tracking
- ▶ Emergency Preparedness plans and procedures
- ▶ Environment and Safety policy, plans and procedures
- ▶ Quality policy, plans and procedures
- ▶ Documenting near-misses, incidents, and non-conformances
- ▶ Management of Change process
- ▶ Performance evaluation
- ▶ Procedures for HSSEQ and operational audits
- ▶ Regular management reviews and continual improvement

MONITORING

- ▶ Bear den screening complete each Fall.
- ▶ Wildlife and environmental monitors onsite for everyday of construction.
- ▶ No significant wildlife activity to report during ESW or WW to date.

Daily Wildlife Monitor Report
Elias Services

Date: Dec 12/2023
Wildlife Monitor: Elyse Dillon Location: M-18

Time of Patrol: 7:30 AM Notes: had safety meeting at E.S.T. was good then they drove us to M-18 site

Time of Patrol: 9:30 AM Notes: Drove around M-18 site and checked for wildlife signs that for tracks. P.M. gen 2 - 150' light winds from SW light snow

Time of Patrol: 12:30 PM Notes: new wildlife tracks - lots of tracks coming from M-18 west site

Time of Patrol: 2:00 PM Notes: with wild life
Drove around site took pics of road from distance - working on the hill road going to M-18 site

Time of Patrol: 3:00 PM Notes: no wild life
lots of fox tracks took pic of tracks near M-18 in the back ground

Time of Patrol: 5:30 PM Notes: no wild life

6:30 PM got ready to head back to town

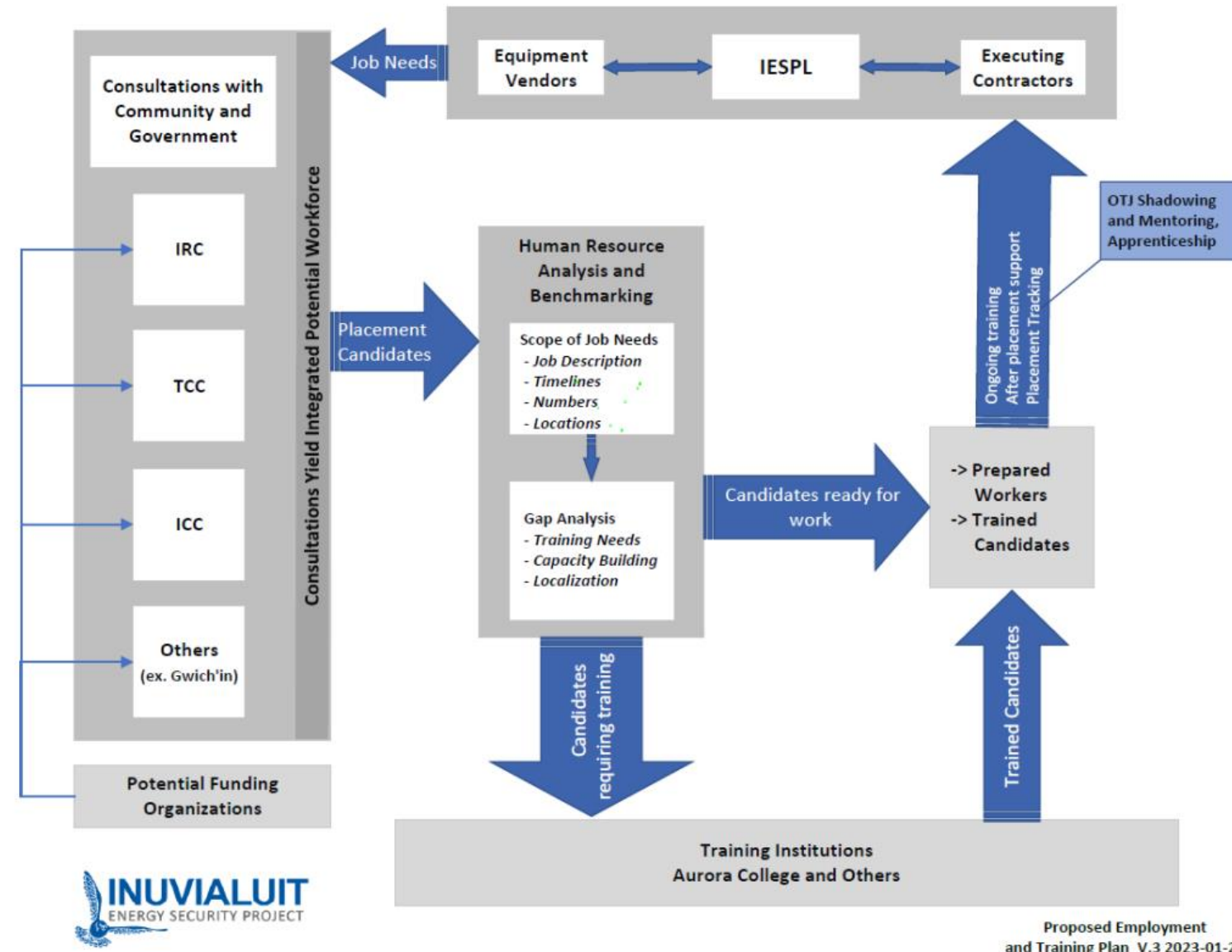
Sample: Daily Wildlife Monitoring Report

IESP ENVIRONMENTAL MONITORING PROCEDURES	
Procedure	Frequency
AIR LIGHT and NOISE	
Ambient Air (Dust) Monitoring	Constant during dust season
Noise Monitoring	Monthly
Digital Light Intensity Monitoring	Monthly
WILDLIFE	
Bear Encounter Protocol	As Needed
Wildlife Sighting Reporting	As Needed
Bear Den Screening	Annual (Fall)
WATER, FISH AND FISH HABITAT	
Surface Water Quality Monitoring	Annual
Turbidity Monitoring	As needed (spring)
PERMAFROST AND EROSION	
Ground Temperature Monitoring	Quarterly
Bridge, Road, and Pad Performance Visual Monitoring	Constant/Weekly
PEOPLE	
Contractor Monitoring	Constant
Driver and Speed Monitoring	Constant
Land User Interaction Reporting	As needed
Historical Resources Chance Find Procedure	As Needed

JOBS AND BENEFITS

- ▶ Long-term skilled positions to operate the Energy Centre (over 20 direct positions).
 - ▶ Power engineers (plant operators), electricians, millwrights, instrument technicians, regional management, health and safety personnel, environmental and wildlife personnel, and general labourers.
- ▶ Indirect jobs and business opportunities related to all phases of the IESP construction and operations (transportation and logistics, maintenance, monitoring, camp and catering, and support for the major contractors and equipment vendors).
- ▶ Significant energy cost reduction for households and businesses in the region.
- ▶ Environmental savings of up to 40,000 tonnes of CO2 emissions per year by eliminating the need for southern import and transportation of fuels.
- ▶ Energy Security!

OPPORTUNITIES GUIDE



Proposed Employment
and Training Plan V.3 2023-01-27

INUVIALUIT TRAINING AND JOBS

- ▶ With ESW and WW construction this winter, approximately 100 people are now working on the IESP. The majority of the workers are from Tuktoyaktuk and Inuvialuit beneficiaries.
- ▶ IESP has recently received several resumes from skilled Inuvialuit beneficiaries interested in the long-term operating and maintenance jobs at the Energy Facility.
- ▶ IESP, IRC, and Aurora College worked together to do a Trades Awareness Program in Inuvik in February, introducing high school students to what skilled trades are required for working on the IESP long-term.




Spill Training

PROJECT NEXT STEPS

- ▶ Complete the road and bridge construction.
- ▶ Complete well workover.
- ▶ Finalize the engineering design, construction methodology, and project schedule.
- ▶ With full CER approval achieved, now finalizing financing of the IESP in the coming months. Major equipment construction on the IESP would begin in Q2 2024.



M-18 Well Site – March 2024



THANK YOU
QUYANAINNI
MAHSI CHO