PROJECT MANAGEMENT PLAN

Jenin Project

HARVEST
WASTE

CONTENT

HARVEST WASTE

1

Introduction

HARVEST WASTE

1.1 PROJECT INTRODUCTION

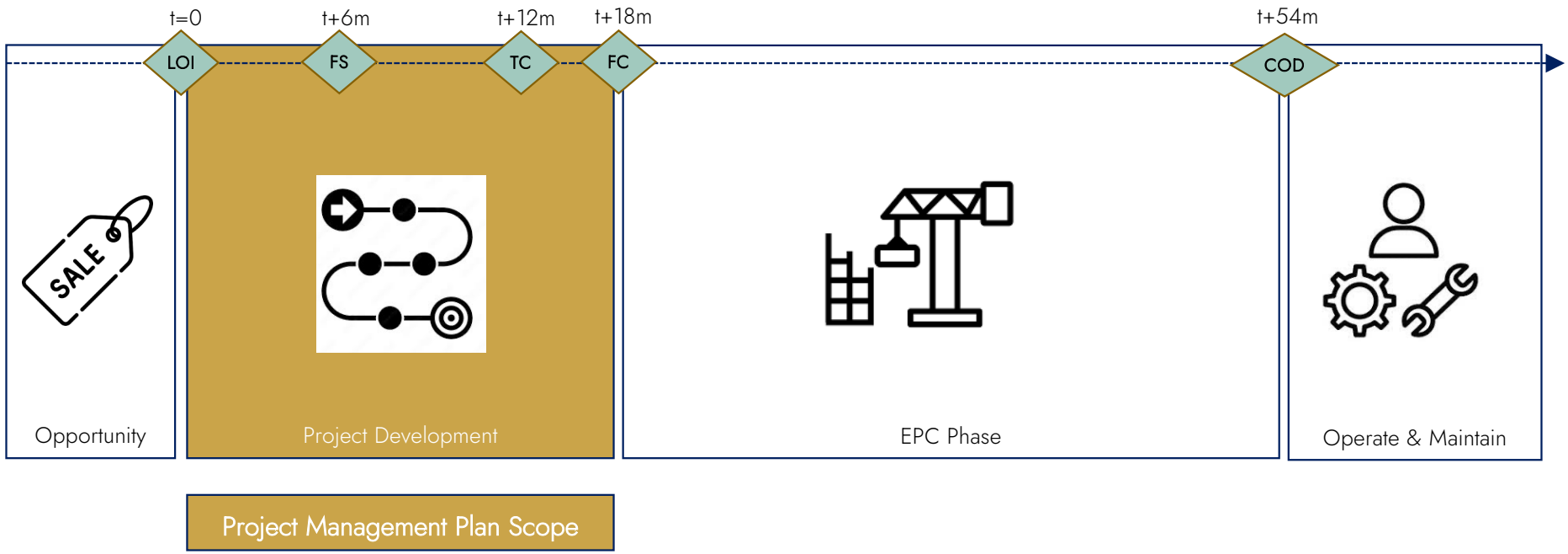
Develop a 1.200 tpd High Efficiency Waste-to-Energy plant in Jenin, Palestine

The project was awarded in March '21 after an international tender procedure

- The company Sorouh Energy, consisting of strong and knowledgeable partners in the field of Waste-to-Energy (WtE), has the ambition to develop and construct a world-class "beyond Best Available Technology" facility in Jenin, with a capacity of processing around 1,200 tonnes of waste per day (the Project). The proposed plant will produce around net 33-50 MW of electricity to be sold to the grid, depending on the caloric value of the waste.
- In March 2021, the Northern Consortium (now incorporated in an SPV called Sorouh Energy) finished first in the Palestinian Authority Ministry of Local Government international tender Project No. MOLG2020-1/20. The project was awarded subject to conditions in Q3 2021 (award letter can be provided on request).
- Sorouh Energy is specifically set up to develop the Jenin WtE plant with Harvest Waste's High Efficiency technology based on and similar to the AEB WtE plant in Amsterdam, The Netherlands. This reference plant uses the world's most efficient technology for generating electricity from waste and it will treat the current and future municipal solid waste of Jenin. WtE technology minimizes land requirements and produces baseload clean energy. In addition to that, the remaining slag from the incineration process can be recycled to further reduce landfills and provide valuable inert materials and metals for the construction industry.

1.2 PROJECT GOALS AND PMP SCOPE

The projects first objective is to reach Financial Close (FC) => the scope of this PMP



1.3 SUCCESS FACTOR: 'BANKABILITY'

The objective is to reach FC: private, commercial, and multilateral lenders invest in the project

In return, lenders demand a clear risk framework, maximum guarantees and thus 'BANKABLE' quality contracts, project team, studies, etc

Key success factors

- Bankable project contracts (Waste concessions, PPA, Land, EPC)
- Bankable and experienced consultants, advisors, EPC company
- Bankable design and consultancy reports
- Bankable project team: successful and proven track record
- Bankable project approach: transparent, traceable and auditable

Generic project challenges

- Develop project contracts with acceptable conditions for lenders
- Select and procure services from reputable companies
- Develop a framework of performance guarantees, accepted by suppliers
- Hire highly qualified and reputable project team members
- Bridging cultural differences and local conditions

Lenders will perform their due diligence on all quality aspects

1.4 PURPOSE OF PMP

A project management plan pursues project control & supports bankability

PMP sets project baselines

Scope Baseline

Definition of what falls within the objectives of the project and what does not. The scope often equals the awarded proposal, including its assumptions or exclusions.

Budget Baseline

The project budget – approved by shareholders - needed to develop the project to FC.

Schedule Baseline

The project schedule – approved by shareholders – needed to develop the project to FC within the agreed timeframe.

PMP sets methods and criteria

Methods and standards for

- How to break down the work (WBS)
- How to organise the team (org chart)
- How to manage the work; budget, schedule, procurement, contracting, stakeholders, funding, etc.

Criteria and guidelines for

- Procurement of advisors, EPC and O&M
- Developing the projects contracts
- Execution & review of studies and design
- Permits and stakeholder engagement
- Obtaining project funding

PMP enables scalability across portfolio

A consistent approach leads to comparable results. By applying the approach to other projects, this results in a manageable project portfolio.

This PMP is based on international standards

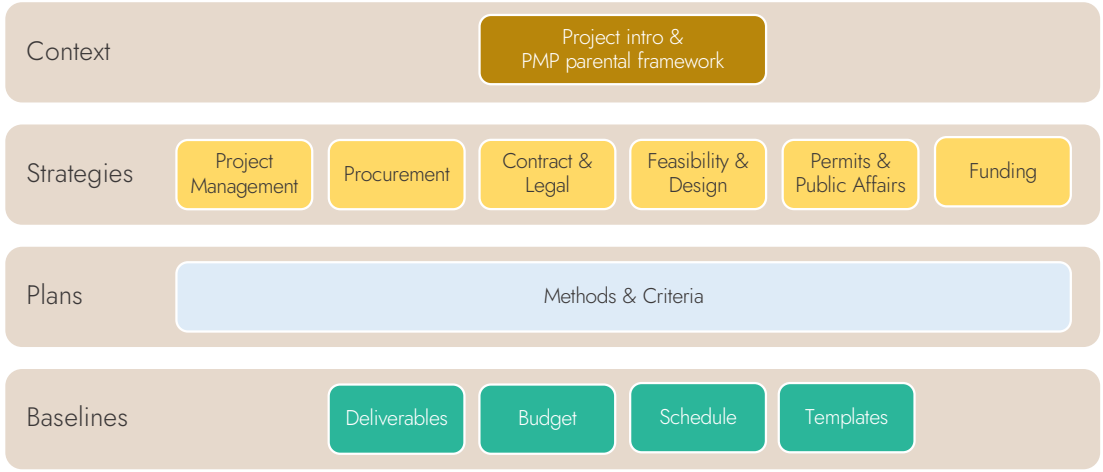
IPMA international project management association

tma

Project Management Institute.

1.5 PMP DOCUMENT STRUCTURE

The document structure supports the (future) development of policies/standards/processes, if needed



- By applying a logical and transparent breakdown, comparable and verifiable results across different phases and projects is ensured
- Strategies provides a rationale and/or the bigger picture to achieve long term project goals
- Methods provides guidelines & procedures how to achieve these goals
- Criteria provides requirements that goals as well as methods must comply to
- Baselines are project deliverables, needed to achieve the project result

1.6 PROJECT MANAGEMENT DEFINITIONS

Definitions of the project management areas

Management Area	Purpose
Integration	Brings together all project areas and work streams, necessary for successful project completion
Scope	Safeguards that the project includes all the work required, and only the work required. Also ensures that scope changes are considered in an integrated manner
Schedule	Ensures timely completion of the project
Cost	Ensures project completion within the approved budget
EHS	Safeguards that environmental, health and safety (EHS) criteria are properly addressed
Resource	Defines and manages the right resources (project team roles).
Communication	Provide effective project communication within & outside the team and towards SPV.
Risk	Ensures the project is executed with the lowest possible overall risk.
Stakeholder	Identifies, analyses, and engages relevant external (public) stakeholders
Information	Ensures that the SPV manages project information across all phases

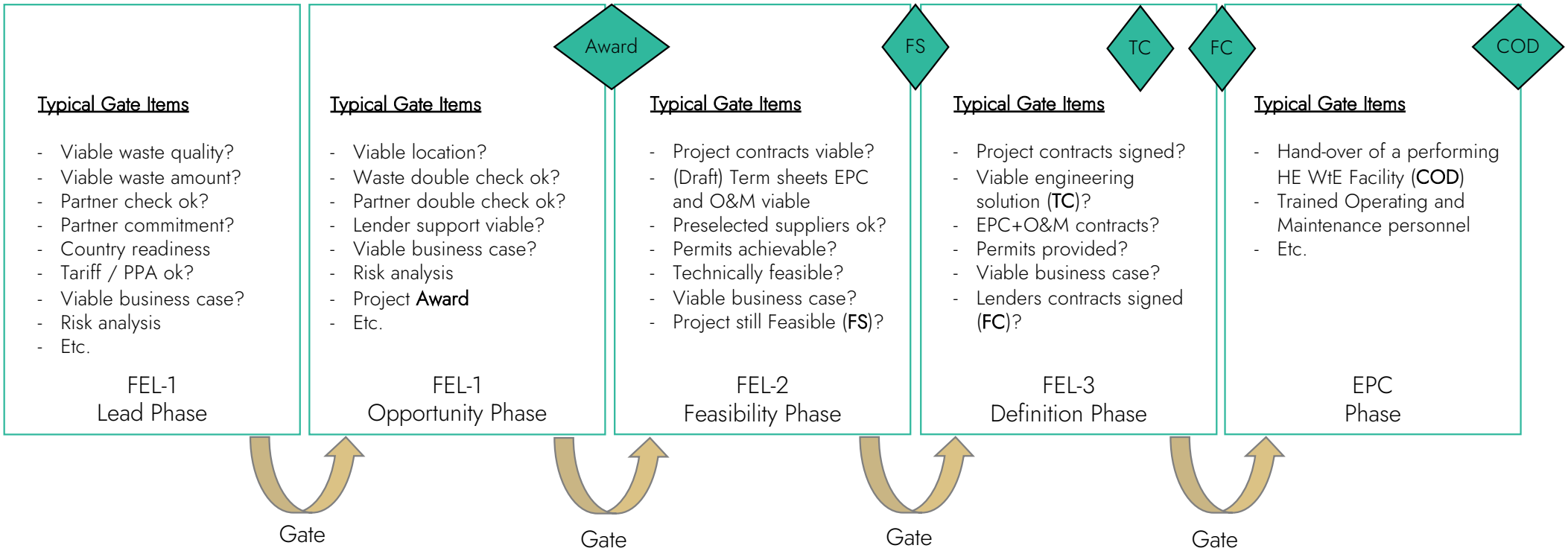
2

Phasing & Gates

HARVEST WASTE

PROJECT PHASES

Project development = mitigating risks, creating project value. Each phase mitigates specific risks



GATE PROCESS

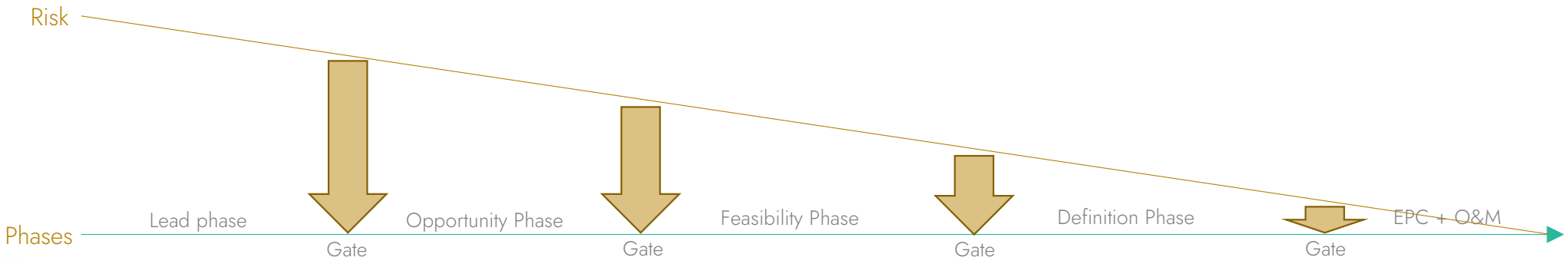
Aims to control and mitigate project risks, monitor scope changes and maintain stakeholder interests

Key items

- Gate reviews provide specific evaluation points in the project life cycle when further progress entails higher investment and commitment
- Gates reviews result in three possible outcomes;
  a) the project may proceed from the current phase to the next phase
  b) the project may conditionally proceed but must address or re-work some key open items (to be defined SMART)
  c) the project is cancelled
- Based on industry standard for project management PMI/PMBOK

Provides insight into the project's progress to-date, changes, and the project directors plan for the near term

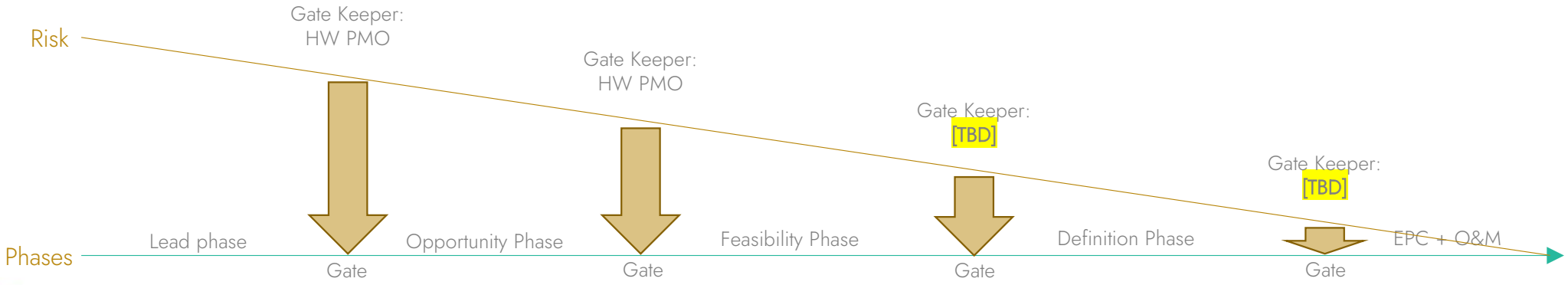
- Assessment of readiness for project to go forward
- A revalidation of the project's purpose
- A recap of recent project history
- A look into the project's near-term plans
- A re-commitment of resources
- An 'external' review of the project



GATE PROCESS GOVERNANCE

People involved in decision making

- The Gate Keeper is accountable. The Gate Keepers' role is to makes sure the project proceeds with a company-wide re-commitment to the (current) scope, required resources, estimated risk, and other company and project interests
- The Gate Keeper should not be the Project Director nor the project sponsor (representative of the owner) because of their close involvement into the project. He should be neutral regarding the outcome of the gate review. This person should chair the Gate Review meeting, set the agenda, and invite participants.
- Attendees at a Gate Review are generally senior managers, sponsors, resource providers, and possibly other project managers (peers). The project team itself should not be included since discussion may involve staffing, the project's purpose, etc.
- The Project Director prepares the gate review and informs the team about the outcome



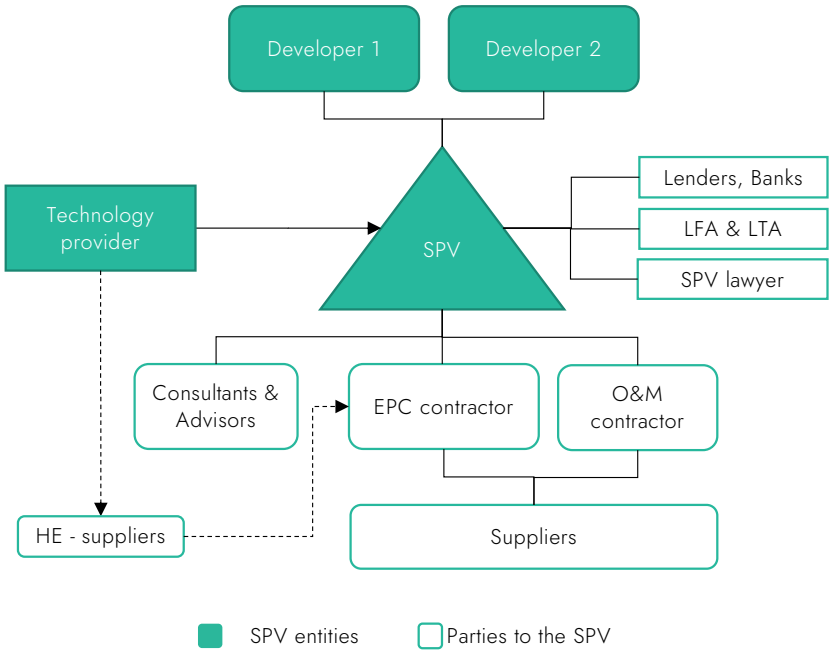
3

Project Governance

HARVEST WASTE

PROJECT STRUCTURE

Project structure



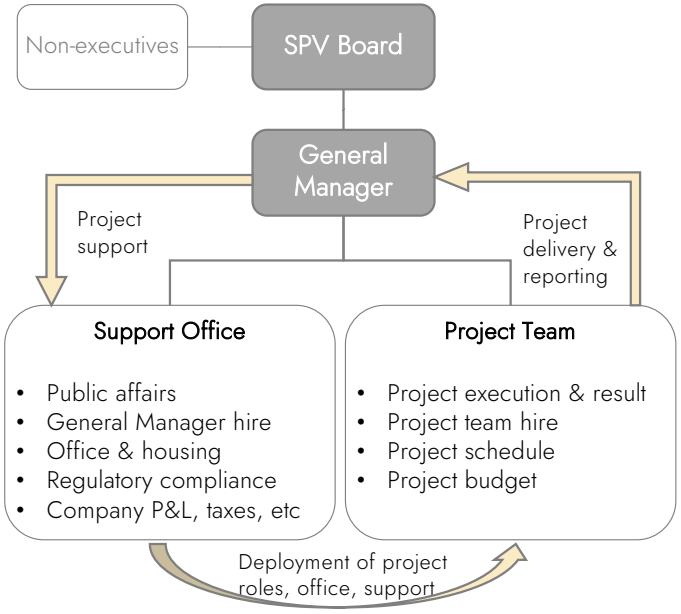
Definition of parties

Developers	Co-owners of the Project Company
SPV	Project Company
Technology Provider	Technology provider provides the Basic Design and the technology license to the SPV. Preselects HE-suppliers
HE - Suppliers	Suppliers of High Efficiency Equipment. Provide guarantees to EPC contractor. HE suppliers are preselected by the SPV Technology Provider
EPC Contractor	Detailed design, procurement and construction of the plant. Provides overall performance guarantee
O&M Contractor	Operates and Maintains the plant after hand-over from EPC. Ensures operational performance according to specs
Lenders, Banks	Co-financing the project
LFA & LFA	Lenders Financial & Technical Advisor: will give banks comfort by performing DD on all project aspects
SPV Lawyers	Support SPV in drafting and negotiating contract(s)

SPV STRUCTURE

SPV to be split, enabling maximum focus for the project team

SPV organisational chart

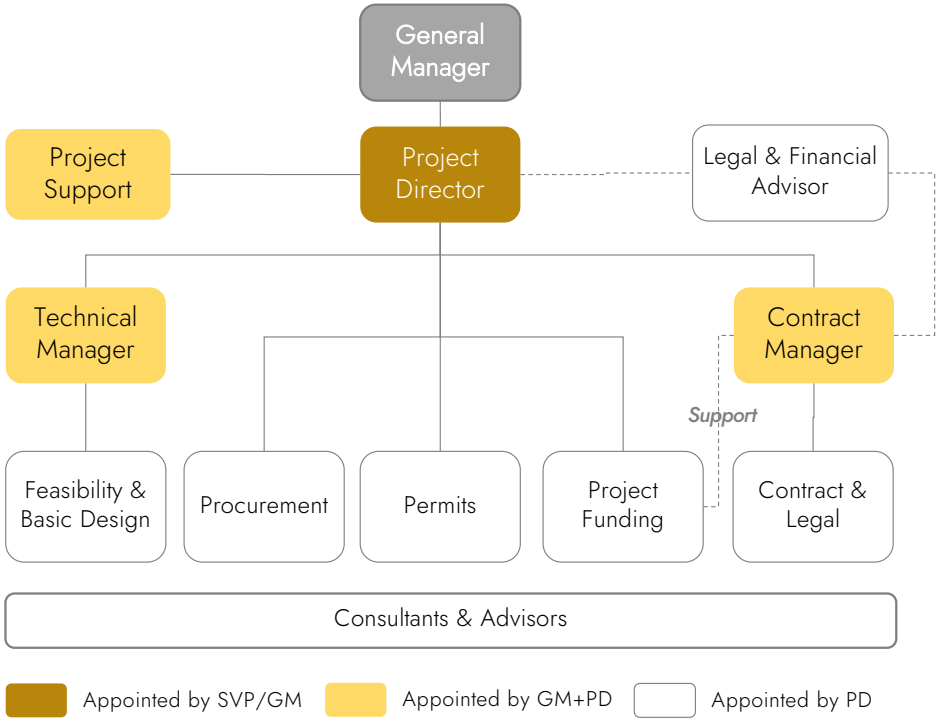


Responsibilities

SPV Board	Represents the interests of shareholders. Responsible for Project governance. Approval of strategical project decisions or changes, strategical stakeholder management
General Manager	Externally: face of the project to the outside world (dignitaries, key stakeholders, etc). Internally; Owns the total budget and allocates according to plan. Supports the project(s) with staffing, office, etc. Grows and maintains basic company needs and ensures company compliance. Reports to SPV Board
Support Office	Support the project with basic needs to execute the project
Project Team	Focuses on reaching FC within time and budget. Responsible for hire of project team members. Reports to General Manager

PROJECT TEAM ORGANISATION UP TO FC

Project Organization Chart

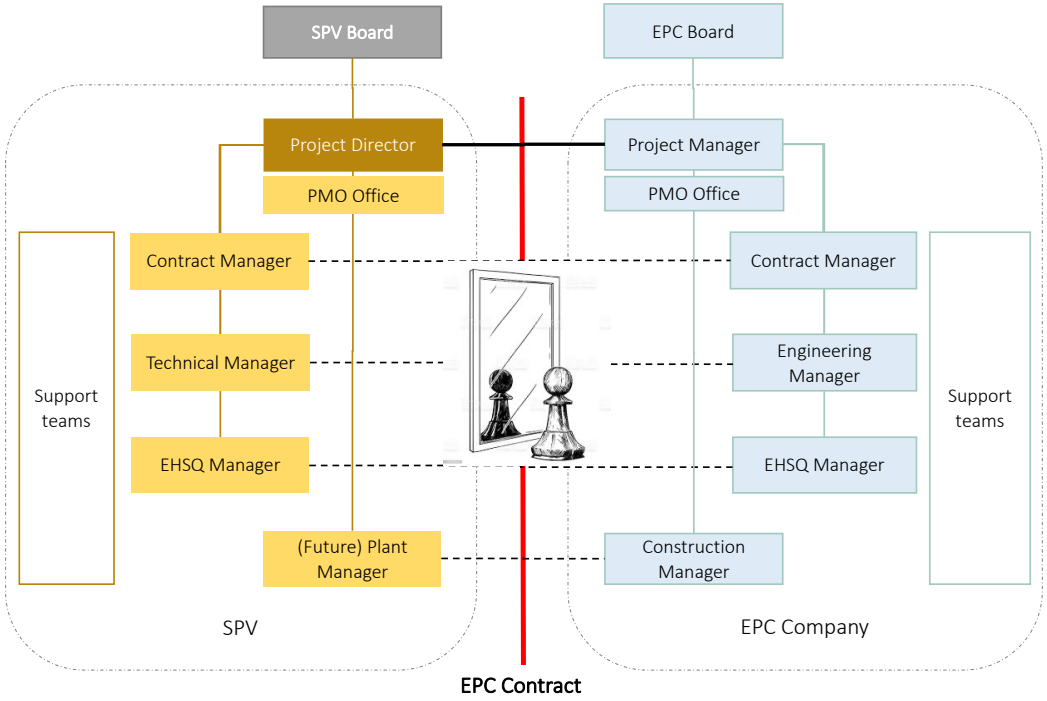


Responsibilities

General Manager	Assigns project director to the project with approval from SPV Board, Selection & assignment of other project roles to be done in mutual agreement between Project director and GM
Project Director	Ultimately accountable for leading the project to Financial Close within project budget and planning. Key responsibilities include; report to the GM, manage project team, procurement and secure the project financing.
Contract Manager	Responsible loan agreements and all other contractual matters on behalf of the SPV. Contracts with EPC/OM, Suppliers and all other advisors. Supports the PD with project funding
Technical Manager	Responsible for providing a viable, bankable engineering solution. Point of contact for Engineering partner
Project Support	Operational support. Monitors variations, budget, planning & risks. Supports reporting, procurement, etc. To be selected and assigned by Project Director.

PROJECT TEAM - EPC PHASE

Mirrored Project Organization



Rationale

The roles from the development phase will be maintained through the EPC phase and will form a 'mirrored' organisation opposite to the EPC team. The roles, indicated at the EPC side (right side in picture) will be required in the RFP for EPC. This mirrored setup:

- Separates supervision (SPV) and execution (EPC);
- Enables SPV and EPC to manage the project, based on a shared knowledge basis;
- Creates a sound natural tension between the different interests within both project teams
- Is based on common industry practice

Whether or not to outsource parts of this organisation, is up to the SPV to decide

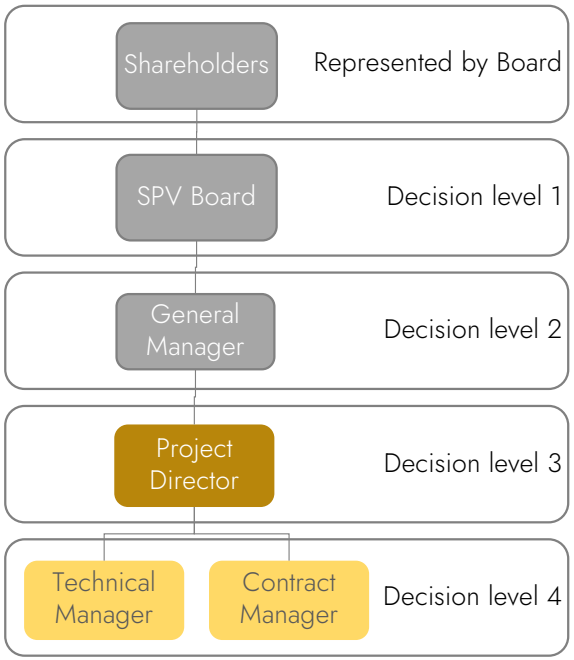
WORK BREAKDOWN STRUCTURE (WBS)

The project scope is divided into separate work packages

- **WP0-Project Management;** lead the project and manage project results; budget, schedule, risks, communication, etc
- **WP1-Procurement**: procurement of advisors, equipment suppliers, EPC and O&M
- **WP2-Contract and Legal**: develop bankable project contracts (PPA, waste, land), contracts with advisors/EPC, etc
- **WP3-Feasibility & Design**: develop a viable design solution, based on results of the feasibility studies
- **WP4-Permits & Public Affairs**: ensure permits are obtained & management of all external and public stakeholders
- **WP5-Finance**: arrange the financing of the EPC and O&M phase of the project

DECISION AUTHORITY LEVELS

The SPV has different levels of decision maker authority, each with its own mandate.



#	Decision level	Support office budget mandate	Project budget mandate	Budget variations mandate	Planning variations mandate
1	SPV Board (6 directors)	Max 500k USD, within support office budget	Max 500k USD, within project budget	Max 10% exceedance of project budget	Max 10% exceedance of critical path
2	General Manager (+ 2 directors)	Max 250k, within support office budget	Max 250k, within project budget	Max 5% exceedance of support office or project budget	Max 5% exceedance of critical path
3	Project Director (+ GM)	No mandate, but PD approval needed for hiring project roles	Max 100k, within budget of work package budget	Max 5% exceedance of work package budget	Planning variations No critical path impact
4	Project Management	No mandate	No mandate	No mandate	No mandate

4

WP0 – Project Management

HARVEST WASTE

PROJECT INTEGRATION PLAN

Brings together all project areas and work streams, necessary for successful project completion

Implementation of PMP

Goal: Implement the PMP in the project team

- Directly after assignment, the Project Director will review the existing Project Management Plan and project baselines and may propose amendments.
- Designated project team members will also review their part of the scope, plans and baselines and may propose amendments.
- After this, the Project Director will make sure that project team members are aware of their and responsibilities in the project.
- The final PMP require SPV Board approval

Reporting & Monitoring

Goal: help stakeholders understand the current state of the project, recognize actions to take to address any performance issues and to have the visibility into the future project status

- Compare actual performance to project objectives and baselines, ensure follow up
- Provide forecasts regarding scope, cost, schedule, and risks
- Monitor implementation of approved change control requests
- Ensure that the project stays aligned with project's objectives, scope, schedule, and budget approved
- Hold project team meetings to review operational status (1 x week with the project team)
- Hold project review meetings to present metrics and status to team and sponsor (1 x month with SPV Board). A project reporting template is available

Manage Project Knowledge

Goal: Capture, share and use lessons learned. Encourage a learning mindset within the team. The following steps will be followed for this

- Identify: gather comments and recommendations that could be valuable for future projects
- Document: document and share findings consistently. A a lessons learned log template is available
- Analyse: assess findings for future application
- Store: place in a repository
- Retrieve: Recover for use on current projects

SCOPE MANAGEMENT PLAN

Ensures the project includes the work required, and only the work required

Project scope definition

Goal: Defines deliverables & milestones - including quality requirements - needed to achieve the projects' objective

- Directly after assignment, the Project Director will review the existing milestone list for Feasibility and Definition phase and may propose amendments.
- Designated project team members will also review their part of their deliverables & milestones, and may propose amendments as well
- The final list of milestones & deliverables require SPV Board approval
- The project scope is broken down in 6 work packages

Manage assumptions

Goal: safeguarding that assumptions, made in the proposal phase, are confirmed or - if changed – impacts are managed.

- Directly after assignment, the project team will retrieve assumptions made from the previous phase. In addition to listing the written assumptions, interviews should also be conducted with individuals - involved in the proposal phase - to reveal them
- The assumptions log should be categorized by potential impact
- Individual assumptions should be assigned to project team members
- An assumptions log template is available

Change Control

Goal: to ensure that potential changes to baselines of the project are identified, evaluated and then approved, rejected or deferred.

- Any project stakeholder may request a change. Also issues, found while the project work is performed, could lead to change requests
- A change request must contain relevant information about the impact on the project baseline(s)
- A change request must be judged according to the approval authority scheme.
- Criteria to assess change requests may go beyond the scope of the project: Local or national legal requirements; industry standards; organisational policies from shareholders
- Only approved changes will be incorporated into a revised baseline
- Inspections can be used to verify whether a change request has been followed up according to the approval.

SCHEDULE STRATEGY

Define an optimized overall time schedule from award -> COD

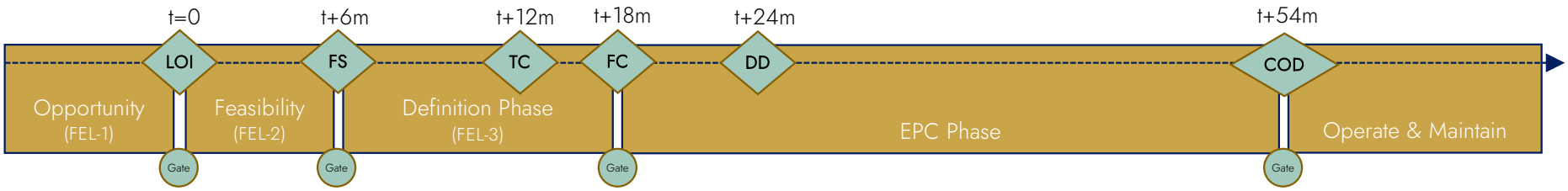
Strategy & Goals

Strategy

- The overall time schedule is defined from project award (LOI) to commercial operation date (COD)
- Investors demand a fair balance between investments and generation of value / reduction of project risks. Optimizing the time schedule results in the projects' optimized cash flow scheme and thus the funding scheme.
- To support this, a 'stage gate process' is a proven way to define phases and manage project risks. This allows investors to evaluate project progress and value at predetermined milestones & gates. A positive 'gate pass' legitimizes further investments. The overall project schedule will be based this.

Goal: the project schedule must serve to:

- represent how and when the project will deliver the project scope
- serve as a tool for communication and managing stakeholders' expectations
- serve as a basis for performance reporting



SCHEDULE MANAGEMENT PLAN

Timely completion of the project

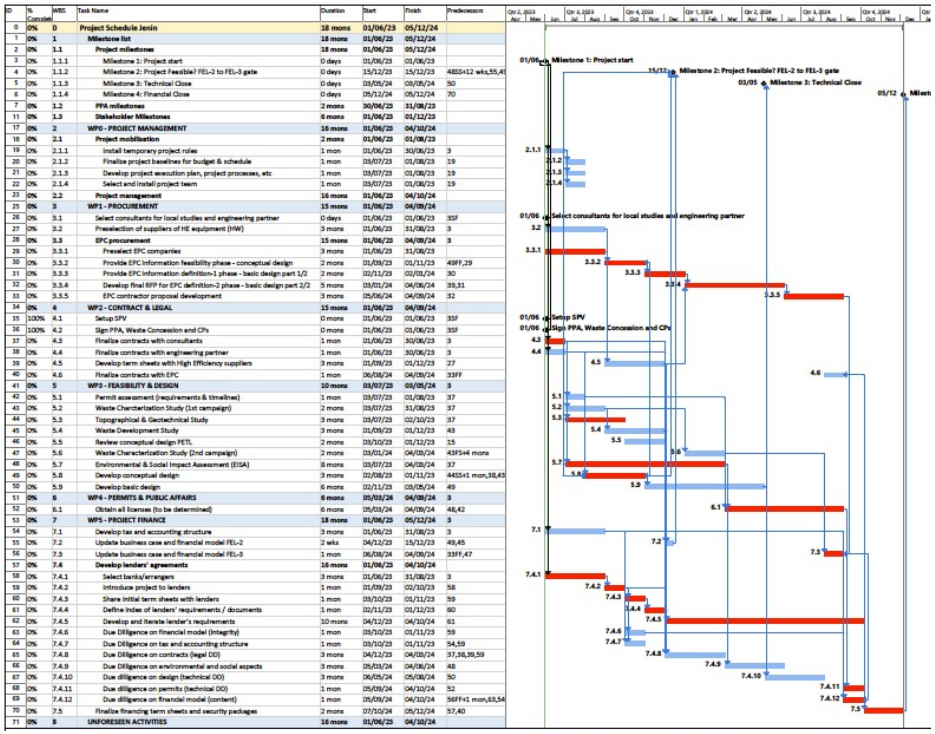
Methods & Criteria

The project schedule will be defined at the start of each project's phase. The project director must obtain approval from the SPV Board for the initial project schedule; this will become the schedule baseline. Periodically, the project schedule will be compared with the schedule baseline and reported to the team and the SPV Board.

- **Planning framework**: the WBS provides the basic framework for the project schedule
- **Critical path** must be included. Relationships must be used to determine the order of activities and define the project's critical path.
- **The software tool** used for scheduling, will be Microsoft Projects
- **Level of accuracy**. Class 3 schedule, to be noted in days.
- **Control KPI**: monitoring the schedule performance. Schedule Performance Index (SPI) will be used for this; a measure of how close the project is to being completed compared to the baseline schedule: dividing the percentage of project's supposed competition divided by the actual completion.

The level of schedule detail will increase with each project phase. The SPV adheres to international schedule standards for project planning. Schedules increase in detail over time.

Schedule Example

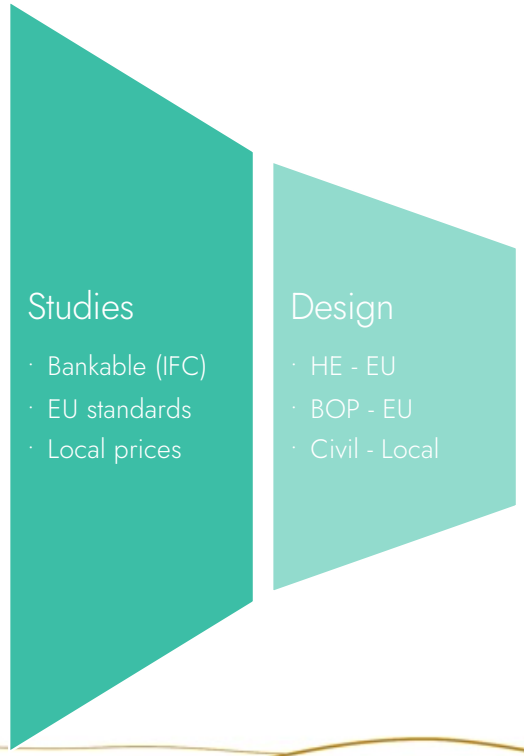


ID	% Complet	WBS	Task Name	Duration	Start	Finish	Predecessors
0	0%	0	**Project Schedule Jenin**	18 mons	01/06/23	05/12/24	
1	0%	1	**Milestone list**	18 mons	01/06/23	05/12/24	
2	0%	1.1	**Project milestones**	18 mons	01/06/23	05/12/24	
3	0%	1.1.1	Milestone 1: Project start	0 days	01/06/23	01/06/23	
4	0%	1.1.2	Milestone 2: Project Feasible? FEL-2 to FEL-3 gate	0 days	15/12/23	15/12/23	4855+12 wks,55,4
5	0%	1.1.3	Milestone 3: Technical Close	0 days	03/05/24	03/05/24	50
6	0%	1.1.4	Milestone 4: Financial Close	0 days	05/12/24	05/12/24	70
7	0%	1.2	**PPA milestones**	2 mons	30/06/23	31/08/23	
11	0%	1.3	**Stakeholder Milestones**	6 mons	01/06/23	01/12/23	
17	0%	2	**WP0 - PROJECT MANAGEMENT**	16 mons	01/06/23	04/10/24	
18	0%	2.1	**Project mobilisation**	2 mons	01/06/23	01/08/23	
19	0%	2.1.1	Install temporary project roles	1 mon	01/06/23	30/06/23	3
20	0%	2.1.2	Finalize project baselines for budget & schedule	1 mon	03/07/23	01/08/23	19
21	0%	2.1.3	Develop project execution plan, project processes, etc	1 mon	03/07/23	01/08/23	19
22	0%	2.1.4	Select and install project team	1 mon	03/07/23	01/08/23	19
23	0%	2.2	**Project management**	16 mons	01/06/23	04/10/24	
25	0%	3	**WP1 - PROCUREMENT**	15 mons	01/06/23	04/09/24	
26	0%	3.1	Select consultants for local studies and engineering partner	0 days	01/06/23	01/06/23	35F
27	0%	3.2	Preselection of suppliers of HE equipment (HW)	3 mons	01/06/23	31/08/23	3
28	0%	3.3	**EPC procurement**	15 mons	01/06/23	04/09/24	3
29	0%	3.3.1	Preselect EPC companies	3 mons	01/06/23	31/08/23	
30	0%	3.3.2	Provide EPC information feasibility phase - conceptual design	2 mons	01/09/23	01/11/23	49FF,29
31	0%	3.3.3	Provide EPC information definition-1 phase - basic design part 1/2	2 mons	02/11/23	02/01/24	30
32	0%	3.3.4	Develop final RFP for EPC definition-2 phase - basic design part 2/2	3 mons	03/01/24	04/04/24	39,31
33	0%	3.3.5	EPC contractor proposal development	3 mons	05/06/24	04/09/24	32
34	0%	4	**WP2 - CONTRACT & LEGAL**	15 mons	01/06/23	04/09/24	
35	100%	4.1	Setup SPV	0 mons	01/06/23	01/06/23	35F
36	100%	4.2	Sign PPA, Waste Concession and CPs	0 mons	01/06/23	01/06/23	35F
37	0%	4.3	Finalize contracts with consultants	1 mon	01/06/23	30/06/23	3
38	0%	4.4	Finalize contracts with engineering partner	1 mon	01/06/23	30/06/23	3
39	0%	4.5	Develop term sheets with High Efficiency suppliers	3 mons	01/09/23	01/12/23	27
40	0%	4.6	Finalize contracts with EPC	1 mon	06/08/24	04/09/24	33FF
41	0%	5	**WP3 - FEASIBILITY & DESIGN**	10 mons	03/07/23	03/05/24	3
42	0%	5.1	Permit assessment (requirements & timelines)	1 mon	03/07/23	01/08/23	37
43	0%	5.2	Waste Characterization Study (1st campaign)	2 mons	03/07/23	31/08/23	37
44	0%	5.3	Topographical & Geotechnical Study	3 mons	03/07/23	02/10/23	37
45	0%	5.4	Waste Development Study	3 mons	01/09/23	01/12/23	43
46	0%	5.5	Review conceptual design PETL	2 mons	03/10/23	01/12/23	15
47	0%	5.6	Waste Characterization Study (2nd campaign)	2 mons	03/01/24	04/03/24	43FS+4 mons
48	0%	5.7	Environmental & Social Impact Assessment (ESIA)	8 mons	03/07/23	04/03/24	37
49	0%	5.8	Develop conceptual design	3 mons	02/08/23	01/11/23	44SS+1 mon,38,43
50	0%	5.9	Develop basic design	6 mons	02/11/23	03/05/24	49
51	0%	6	**WP4 - PERMITS & PUBLIC AFFAIRS**	6 mons	05/03/24	04/09/24	3
52	0%	6.1	Obtain all licenses (to be determined)	6 mons	05/03/24	04/09/24	48,42
53	0%	7	**WP5 - PROJECT FINANCE**	18 mons	01/06/23	05/12/24	3
54	0%	7.1	Develop tax and accounting structure	3 mons	01/06/23	31/08/23	3
55	0%	7.2	Update business case and financial model FEL-2	2 wks	04/12/23	15/12/23	49,45
56	0%	7.3	Update business case and financial model FEL-3	1 mon	06/08/24	04/09/24	33FF,47
57	0%	7.4	**Develop lenders' agreements**	16 mons	01/06/23	04/10/24	
58	0%	7.4.1	Select banks/arrangers	3 mons	01/06/23	31/08/23	3
59	0%	7.4.2	Introduce project to lenders	1 mon	01/09/23	02/10/23	58
60	0%	7.4.3	Share initial term sheets with lenders	1 mon	03/10/23	01/11/23	59
61	0%	7.4.4	Define index of lenders' requirements / documents	1 mon	02/11/23	01/12/23	60
62	0%	7.4.5	Develop and iterate lender's requirements	10 mons	04/12/23	04/10/24	61
63	0%	7.4.6	Due Diligence on financial model (integrity)	1 mon	03/10/23	01/11/23	59
64	0%	7.4.7	Due Diligence on tax and accounting structure	1 mon	03/10/23	01/11/23	54,59
65	0%	7.4.8	Due Diligence on contracts (legal DD)	3 mons	04/12/23	04/03/24	37,38,39,59
66	0%	7.4.9	Due Diligence on environmental and social aspects	3 mons	05/03/24	04/06/24	48
67	0%	7.4.10	Due diligence on design (technical DD)	3 mons	06/05/24	05/08/24	50
68	0%	7.4.11	Due diligence on permits (technical DD)	1 mon	05/09/24	04/10/24	52
69	0%	7.4.12	Due diligence on financial model (content)	1 mon	05/09/24	04/10/24	56FF+1 mon,63,54
70	0%	7.5	Finalize financing term sheets and security packages	2 mons	07/10/24	05/12/24	57,40
71	0%	8	**UNFORESEEN ACTIVITIES**	16 mons	01/06/23	04/10/24	

COST STRATEGY

Defines the total capital costs & range of accuracy for EPC phase

Studies and design strategy



Supply strategy

HE High Efficiency Plant & Equipment	· Highest quality · HW selects suppliers · Made in India/China
BOP Balance of Plant	· Industry standard quality · EPC selects suppliers · Made anywhere
Civil Civil & Construction Works	· Local quality · EPC selects suppliers · Made locally
EPC Engineer, procure & Construct	· Performance based · Accepts HW HE suppliers · Proven track record

Strategy criteria

- The studies provide the necessary basis for the design -> supply -> construction and performance of the plant.
- All environmental, social, and technical studies must meet the highest standards of quality
- State of the art design proven in EU based facilities used for critical and high efficiency components and systems.
- SPV works with local civil contractors who have a proven track record of delivering quality work.
- SPV is committed to providing the highest quality products and services to its customers. As such, SPV will adhere to the latest EU emission standards, even if the target countries do not.
- SPV works with a network of suppliers and EPC contractors in India and China who have a proven track record of delivering quality products and services at competitive prices.
- The CAPEX estimate will increase in accuracy in each phase. For this, the SPV complies to AACE cost estimating standards. For the feasibility phase, a class 2 estimate is required. To finalize the definition phase, the SPV requires a class 1 estimate.

COST MANAGEMENT PLAN

Project completion within the approved development budget

Invoicing plan

Goal: to assure that the outflows of cash are spent according to the scope of services, avoiding budget overruns and expenditures mismatches.

Procedure

1. All invoices related to the project must go to a single mailbox (to be defined).
2. Once the invoice is received, it will be forwarded to the work package responsible who reviews the invoice according to its specification and agreed budget. If the invoice is within the agreed budget and scope of services, the responsible manager will forward the invoice to the Project Director for the second level of approval and assurance that the overall project budget is healthy.
3. In case the invoice does not meet the criteria it will be rejected and informed to the supplier by him/her. Similarly, if the Project Director believes that the invoice can jeopardise the overall project budget, the invoice will be rejected and will be sent back to the responsible manager to inform the supplier.
4. After Project Director and work package Responsible approve the invoice, it will be forwarded to Project Support to process the payment.
5. As part of his day-to-day project activity, the Project Support will constantly run updates and ensure the right allocation of costs. The status will be reported to the Project Director who ultimately safeguards the project's budget, acts accordingly to his mandate and reports budget status to the SPV board.

Cost Control plan

Financial performance will be measured at the level of the work packages. The project's cost control will be maintained by the Project Support in Microsoft Projects (MSP). Inputs for this must be provided by the responsible managers. Information to be logged:

- **Baseline Cost** – The approved version of the Project budget
- **Project Cost** – The latest version of the total expected budget. Actual cost + Remaining cost. ('Cost' in MSP)
- **Actual cost** – Cost incurred for work performed
- **Remaining Cost** – Remaining cost for the remaining scheduled work

A cost forecast will be reported periodically by the Project Director to the SPV Board. Should the forecast be "At Risk" or "Off track" the Project Director, with assistance from the SPV Board will take the necessary corrective actions to bring the costs back in-line. Corrective actions that require a project change request, must approved by the SPV Board before implementation. Budget forecast indicators

1. **Off-track**. Actual cost has exceeded the according baseline budget.
2. **At Risk**. Remaining cost exceeds the according baseline budget.
3. **On Track**. Projected cost does not exceed the baseline budget.

Software tool: Microsoft Projects, template available

EHS MANAGEMENT PLAN

Safeguards that environmental, health and safety (EHS) criteria are properly addressed

Strategy & Goals

Strategy

Performance on EHS is a 'licence to operate' for the SPV. The focus of the SPV safety policy will be at prevention of incidents, supported by monitoring indicators, according to the best international standards.

During all phases, all partners and companies involved, will be assessed to

- be certified according to international standards
- encourage responsibility for health and safety for both workers, management and selected companies or subcontractors
- have in place a monitoring system for safety

Goal::

- Protect project personnel from health and safety hazards associated with the project
- Reduce environmental impacts
- Maintain compliance with all the applicable HSE legal/regulatory requirements
- Improve HSE culture among SPV and suppliers' employees

Methods & Criteria

Throughout the development, the SPV will monitor EHS parameters of its consultants & suppliers, which will be reported directly to the project SPV board. The monitoring parameters will apply (exact thresholds to be specified for each separate project)

- Fatalities throughout all phases, threshold will be **zero**
- The parameters below:
    - Maximum number of injuries
    - Maximum number of medical cases
    - Maximum number of lost time injuries
    - Maximum number of days without casualties or injuries will be published

This will be used to calculate two key safety standards

1. **Incident Rate (IR)**
2. **Lost Time Injury (LTI) rate**

These indicators will be important for the management of the project. This will be also reflected in records and part of the reporting obligations to the project owners.

RESOURCE MANAGEMENT PLAN

Defines and manages the right resources for the project

Definition of resources

- The project roles are defined, as stated in 'project governance' & 'project team'
- In the first period (±8 weeks) the project will be mobilized by SPV members
- Job profiles are available as templates for recruitment
- The occupation of the project team, as well as the phased growth, is shown in the table below. FTE means Full Time Employee. 1 FTE equals 40 hours per week.
- Is it assumed that the project director and technical manager role can be combined in the first phase. From definition phase onwards, it is expected to separate these roles to keep a sound span of control as a result of the increasing workload
- Project support can be separated into multiple (part time FTE) persons, because of the wide range of skills needed.

Management of resources

- The general manager is responsible to recruit and assign the project director. The SPV board needs to sign off as well
- The project director is responsible to hire, recruit and deploy resources within the project team. The general manager will need to sign off as well.
- The project director is responsible for resource management & forecast. This ensures that future resource needs will be addressed in time. Project Support to support.

Software tool: Microsoft Projects, template available

	Feasibility Phase (FTE)						**Definition Phase** (FTE)											
Project Role	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
General Manager	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Project Director	0,5	0,5	0,5	0,5	0,5	0,5	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Technical Manager	0,5	0,5	0,5	0,5	0,5	0,5	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Contract Manager	0,5	0,5	0,5	0,5	0,5	0,5	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Project Support	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0

COMMUNICATION MANAGEMENT PLAN

Provide effective project communication within & outside the team and towards SPV

Internal communication

Goal: provide information within the team and towards SPV. For meetings, meeting notes must be kept. The purpose of this is to communicate transparently and unambiguously to team members, SPV and stakeholders about actions and decision-making.

Procedure:

- Meeting agenda is prepared and communicated to participants upfront
- Minutes (draft) are sent after meeting to participants for comments.
- Minutes (final) are sent in PDF to participants and stored

Software: Microsoft OneNote (agenda & minutes). Box for storage

Type	Purpose	Frequency	Distribution	Output
Project meeting	Review operational status	Weekly	Project team	Minutes
Board meeting	Present metrics and evaluate project status	Monthly	Project team SPV Board Stakeholders	Minutes Dashboard
Gate review	Evaluate closeout of project phases	Before gate pass	Project team SPV Board Stakeholders	Phase completion report

External communication

Goal: provide information to external stakeholders, subcontractors, suppliers, consultants & advisors.

4-eyes principle

- Sensitive information, communicated to external parties, should always adhere to the '4-eyes principle': a review on the content by a project team member before it is sent
- All project team members are expected to judge the sensitivity of information. In principle, all information that could increase the projects risk, is sensitive.
- If in doubt, a 4-eyes check must be done..

All external communication should be saved in a consistent manner

Procedures

For all project information exchange (information requests, reviews, disclosure, handover, etc), strict procedures for communication will be developed in Autodesk.

Software: Autodesk

RISK MANAGEMENT PLAN

Ensures the project is executed with the lowest possible overall risk

Risk Analysis

Risk definition A risk description must be done in a consistent and assertive way, avoiding potential ambiguities. Risks' description also needs to count on their cause and effects. Lastly, risk owners must be assigned: team members in charge of monitoring risk and take the necessary measures to avoid threat to the project objectives.

Risk scoring

Risks will be categorized in cost, schedule and other. The probability and (categorized) impacts on each category will be estimated and translated into a risk score for each individual risk. Risk score calculation = Probability x Cost x Schedule x Other

Cost: cat 1 – 3 (% of total cost baseline value)

Schedule: cat 1 – 3 (% of total schedule baseline period)

Other: cat 1 – 3 to be used to rate other risk impact on projects' success

Escalation thresholds for SPV Board: **Risk score > 50**

PROBABILITY	COST (% of cost baseline)	SCHEDULE (% of phase lead time)	OTHER
1 = < 10% Very Low	1 = < 0,5% Low	1 = < 1% Low	1 = Low
2 = 10 - 30% Low	2 = 0,5 - 1,5% Med	2 = 1 - 3% Med	2 = Med
3 = 30 - 50% Med	3 = > 1,5% High	3 = > 3 % High	3 = High
4 = 50 - 70% High			
5 = > 70% Very High			

Risk Mitigation

After the risk analysis, an appropriate risk strategy must be defined. Possible risk strategies are

Escalate	Appropriate when the project team agrees that a threat is outside the scope of the project, or that the response would exceed the Project Director's authority. Escalated risks are owned and managed at the level of the SPV Board.
Avoid	Strategy that aims to eliminate the effect of a risk. Avoidance may also include extending the schedule, reducing scope, etc.
Mitigate	Take action to reduce or eliminate the probability of a threat.
Transfer	Shifting ownership of a threat to a third party to manage the risk and bear the impact if the threat occurs. This often involves payment of a risk premium, terms and contracting.
Accept	Acknowledge the existence of a threat but take no proactive action. This strategy may be appropriate for low-priority threats. Most common action is to establish a contingency reserve (including time, money or resources to handle the threat).

After the risk strategy is determined, appropriate mitigations / actions will be defined by the responsible team member and approved by the project director. The follow up of these actions will be monitored in regular team meetings.

PROJECT INFORMATION PLAN

Ensures that the SPV manages project information across all phases

Strategy & Goals

Strategy. In general, it's owners' key responsibility is to provide correct information to partners, stakeholders and internal team members, across all phases. In contracted services; if the owners' information was inadequate or incorrect, the result may be at least a claim from partners for extra payment and/or extra time.

Goals:

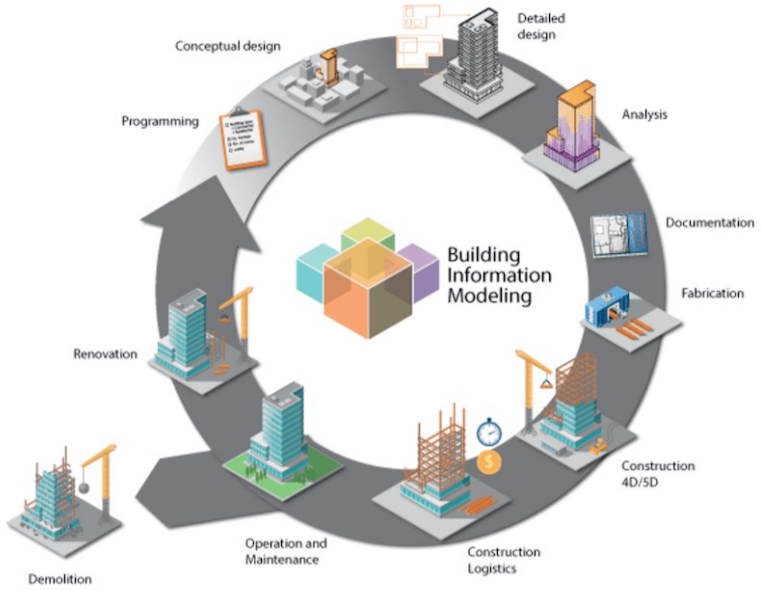
- Create a 'single source of truth' for project information.
- Apply secure, auditable and compatible methods & IT-tools for managing design, documentation and any other correspondence.

IT-tools requirements:

- Security – IP protection / strict access control
- Auditability – Version control to both revisions and project specific requirements
- Compatibility – Industry standard data exchange & widest integration with 3rd party platforms used by suppliers & partners

Methods & Criteria

Implement BIM (Building Information Modelling); a methodology where designers, builders, architects, installers, manufacturers and others involved, can collaborate for the creation and management of a construction project.

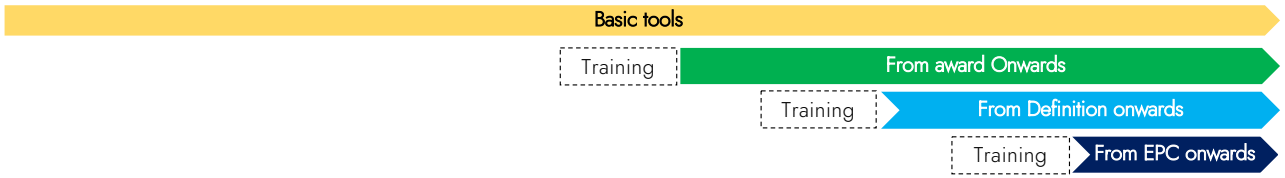


PROJECT INFORMATION TOOLS

Trade off project purpose vs software tools

Purpose	Typical usage	Box, Sharepoint	Office, CAD, etc	Microsoft Projects	Microsoft Power BI	Autodesk Docs	Autodesk Collaborate	Autodesk Build
Content creation	Design, text, calculations, sheets	–	+	+	–	–	–	–
Collaborate	Review, compare, clashing	+/–	+	–	–	–	+	+
Control	Doc control, version, approvals	–	–	–	–	+	–	–
Store	Single source, access control	+	–	–	–	+	–	–
Analyse & Report	Status, visualisations	–	–	+/–	+	–	–	–
Project Management	Schedule, cost, resource mgt.	–	–	+	+/–	–	–	–
EPCM (supervision)	Changes, design review, quality, safety, closeout, project mgt.	–	–	+/–	–	–	–	+

Implementation phasing



5

WP1 – Procurement

HARVEST WASTE

PROCUREMENT STRATEGY

Selecting the right procurement strategy, based on SPV competences and project specific needs

Contracting strategy EPC: performance based single EPC

SPV will use a performance based contract. Options for contract packaging

1. Lot structure. Separate the full scope in lots, when:
   - finance cannot be arranged for the full scope
   - owner has knowledge available for interface management

   Not preferred, because the SPV partners do not have the knowledge & experience to manage interfaces between lots

2. Combining EPC and OM in one turnkey contract. Owners' incentives are aligned with contractor incentives, when EPC+OM is able and willing to team up & take the risk and finance for full scope can be arranged

   Not preferred, because the division of liability risk is unbalanced. The high EPC liability risk will press heavily on the O&M partner.

3. Single EPC:. The default solution, market standard. *Preferred strategy, because EPC and O&M have specific risk profiles and require specific competences. Separation to single EPC (and O&M) results into a manageable & standard risk profiles, enabling lenders to step in.*

The maturity level of the selected EPC must comply to minimum 'level 3 type'

Contracting strategy O&M: performance based specialized JV

SPV will use a performance based contract, meaning:

- Procurement based on functional specifications, rather than on the basis of traditional detailed specifications and drawings
- O&M contractor takes over the facility at COD
- Responsibility for overall facility performance is at the O&M contractor
- O&M contractor operates and maintains the facility for a pre-agreed number of years as a going concern
- O&M contractor takes steps to train local personnel, according to proposal

The SPV will procure a specialized JV as O&M contractor. Rationale

- A large part of the High Efficiency IP of the SPV technology provider, is needed for successful performance of the plant. This IP is available within the SPVs technology provider
- However, neither the technology provider, nor other SPV partners have the required staff available to operate and maintain the plant itself.
- Therefore, to ensure that the plant runs according to the performance agreed, technology provider Harvest Waste has setup an O&M joint venture, together with O&M company BWSC. With this JV, plant performance is guaranteed and the O&M contract can be executed.

PROCUREMENT PLAN

Methods & criteria for procurement of the projects' services and products

Methods

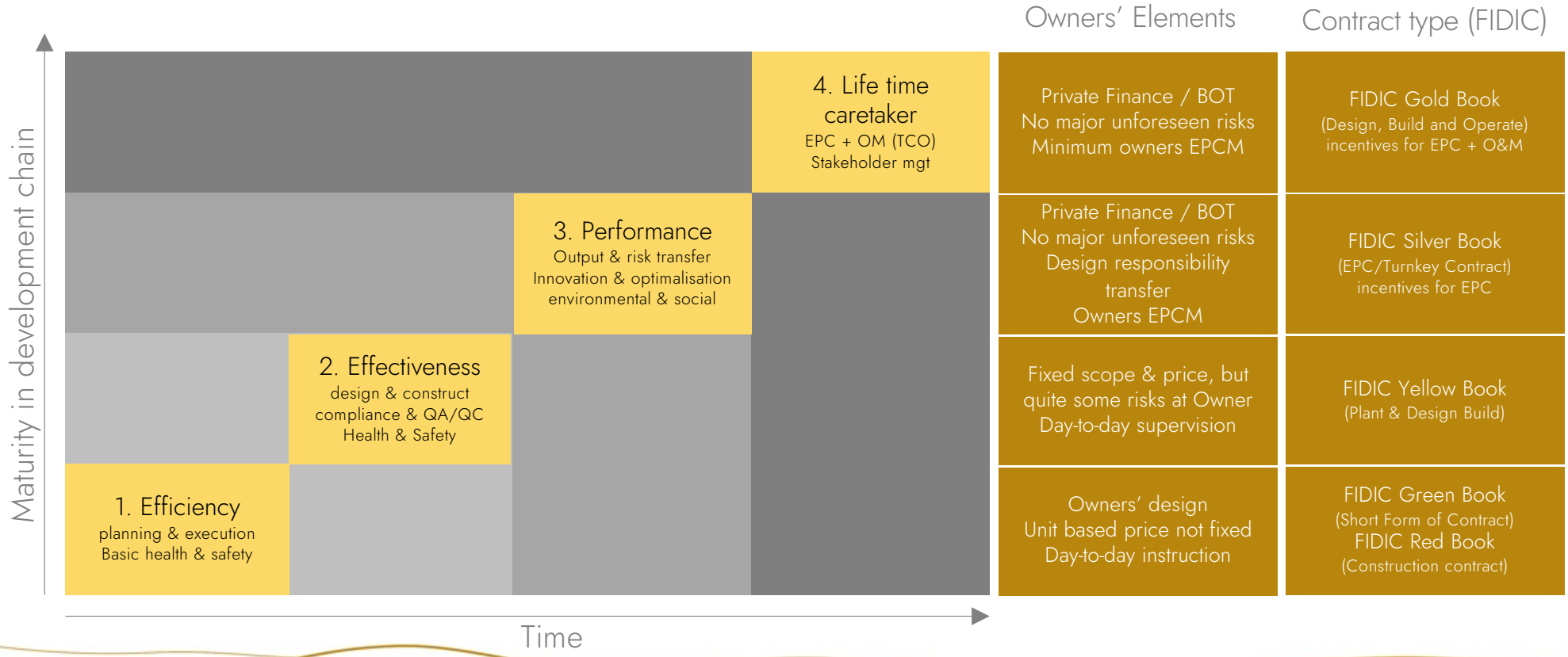
- **Best project value**. Valuable criteria for the project are in any case: cost, time, risk & quality (performance). Contracts could therefore be equipped with financial incentives, penalty and exit clauses to achieve these objectives. This could also mean that not always the proposal with the lowest price will be selected. This will be decided on a case by case scenario.
- **Clear specification of services**. A scope description will be provided. This can be either a full RFP or a more limited Terms of References, depending on the risk profile of the services and scope requested.
- **The premise is lump sum**. This strategy will simplify and speed up the project and will also help managing the supplier. If an exception must be made (because it contributes to project success, lowering the risk profile, etc.), permission must be requested from the SPV board.
- **No corruption**. To prevent favouritism, kickbacks, etc; for each service, the SPV will always strive for a **minimum of 2 comparable offers** from any consultant, advisor, subcontractor, or EPC/O&M company

Criteria

- **Bank standards (bankability).** The company itself but also the results provided by the company, must be accepted by banks and financers to the project. Compliance with IFC Performance Standards standards are mandatory. Companies must provide references that show proof.
- **Contracting standards**. Procurement and contracting of EPC and O&M via FIDIC yellow or silver book. Contracting consultants via FIDIC white book
- **Trustworthiness**: companies must have a steady and clean track record. Positive outcome of due diligence (KYC) is mandatory
- **EHS standards**. According to the goals & criteria, described EHS Management of the SPV, selected companies will be assessed based upon:
  - certification ISO9001 & ISO45001 (previously OHSAS 18001)
  - having in place EHS training that improves awareness and culture
  - having in place a monitoring system for EHS

EPC MATURITY LEVELS

Characteristics of different EPC maturity levels vs owners elements and contract types



MATURITY LEVELS TYPICAL ELEMENTS

Characteristics of different EPC maturity levels and what this requires from owners

1. Efficiency	2. Effectiveness	3. Performance	4. Life time caretaker
• Workmanship • Work planning • Internal supervisors • Reactive Health & Safety • More work = more revenue • Basic quality standards (ISO9001) • Internal focus • Basic IT • No contract management • No in-house lawyers • No stakeholder management	• All elements of level 1 • Able to optimize & work out owners' design • Fully integrated quality policies, control and audits • Health & Safety is actively monitored/reported • Basic certificates similar to ISO45001 and ISO14001 • High level of QA/QC • Contract management (subcontractors & client) • Parts of design outsourced	• All elements of level 2 • Focus on client and performance (improvement) • Design includes Basic Engineering. Familiar with system engineering • Excellent culture of Quality and HSE (visible) • IT: BIM, integrated design packages, 3D modelling • Mgt of design interfaces • Stakeholders mgt EPC phase • In-house legal support	• All elements of level 3 • Focus on all stakeholders • Design and execution focuses on total costs of ownership & revenue optimization • Managed Services for client • IT: design and operational software is integrated • Senior stakeholder mgt, well connected people • Stakeholder in project • Development experience

6

WP2 – Contract & Legal

HARVEST WASTE

HE-TECHNOLOGY VS BREAKDOWN

Plant breakdown vs Unique Technology

Plant breakdown

- HW has developed a breakdown to build its plants based on experience gained in the reference plant construction;
- This structure is based on capabilities / competences of various parties;
- It is built up as follows:

1. Grate & Boiler
2. Water Steam Cycle
3. Turbine
4. FGT
5. Cooling System
6. Electrical & Control
7. Civil, Cranes, HVAC
8. Leachate Treatment
9. Auxiliaries / balance

Main contributors of HE

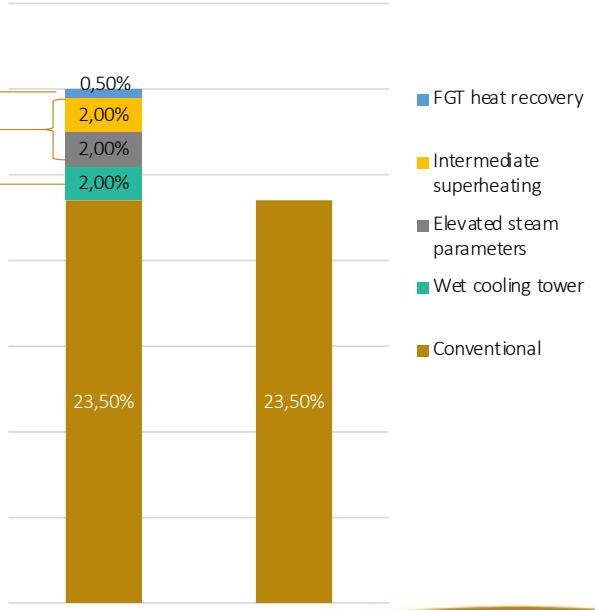
Heat exchangers used in the FGT path

Binary: cooling tower, seawater cooling

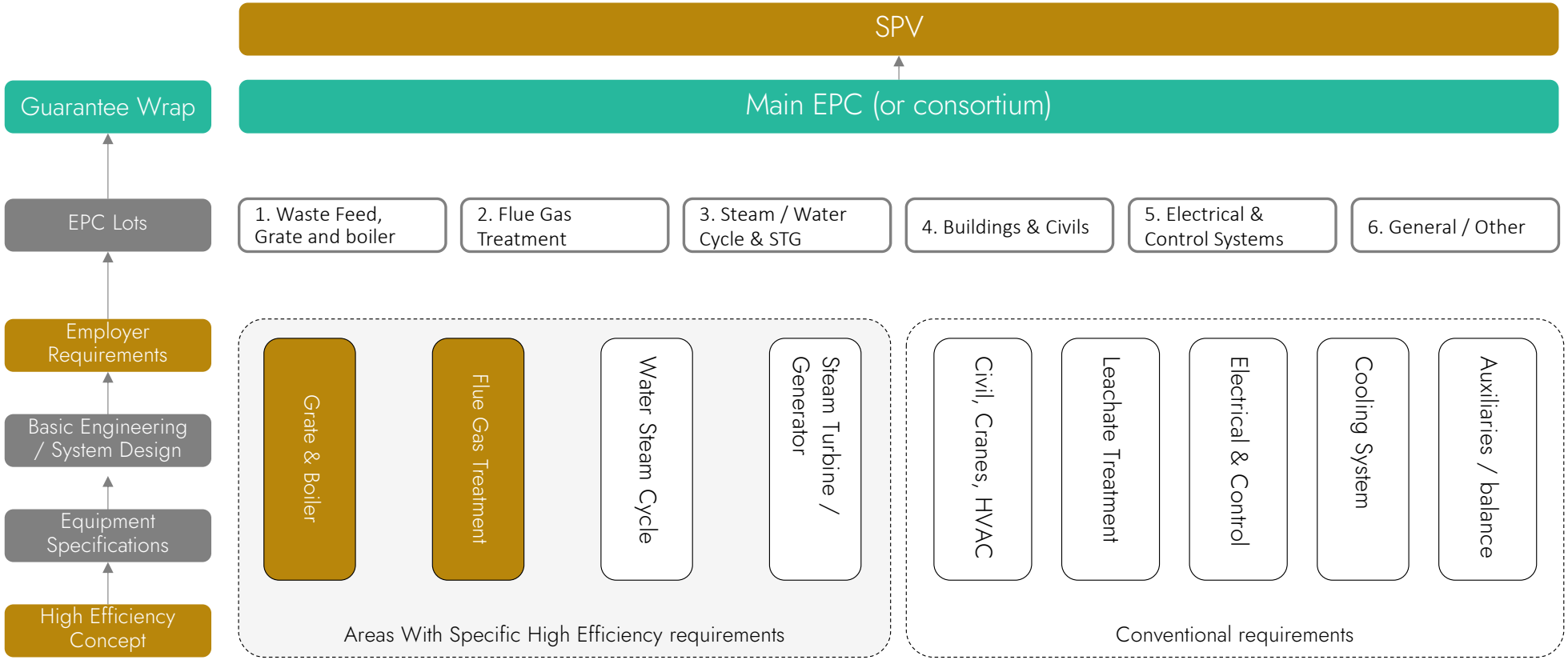
- The **patented HE Technology** is captured in the **Boiler** and **FGT**, for which Harvest Waste will pre-approve selected suppliers
- Remaining lots highlighted in green can be considered as **off-the-shelf technology**

High Efficiency Technology

- HW's High Efficiency (HE) Technology differentiates itself from conventional WtE by delivering at least 25% more electrical output from the same amount of waste;
- The increase in electrical efficiency is achieved by using a combination of technology and know-how in a patented concept, as shown in the graph below:



PLANT BREAKDOWN VS REQUIREMENTS



CONTRACTING STRATEGY - GUARANTEES

Contracting strategy to secure security package (incl performance guarantee) accepted by lenders

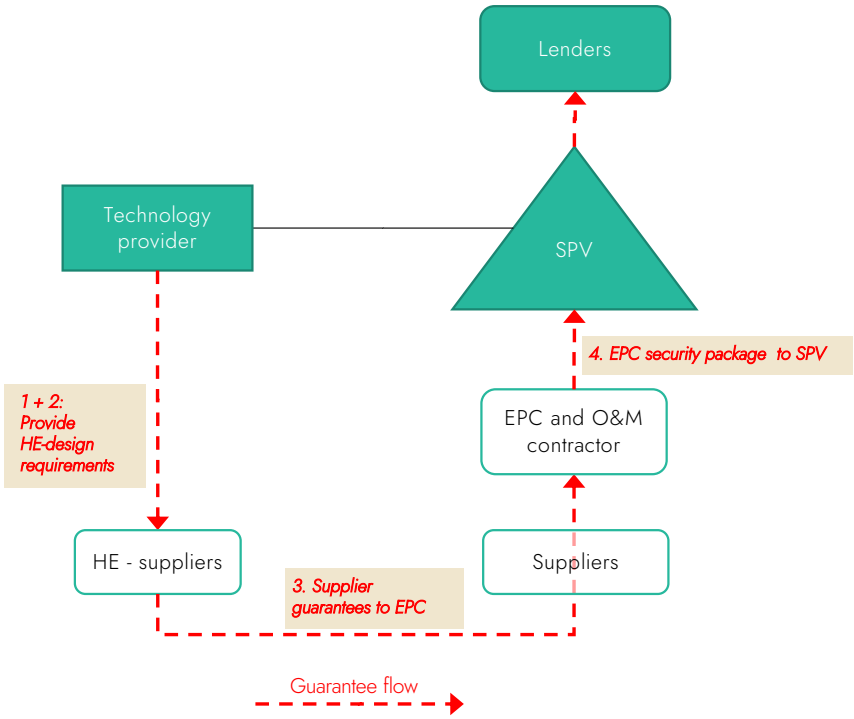
Guarantee rationale

Knowing that

- The SPV does not have the balance sheet to provide the security package for the project. Hence, the SPV must be able to rely on its EPC partner(s)
- The High Efficiency technology is not yet common practise in the market. To get guarantees, specific steps will be taken to safeguard performance guarantees:

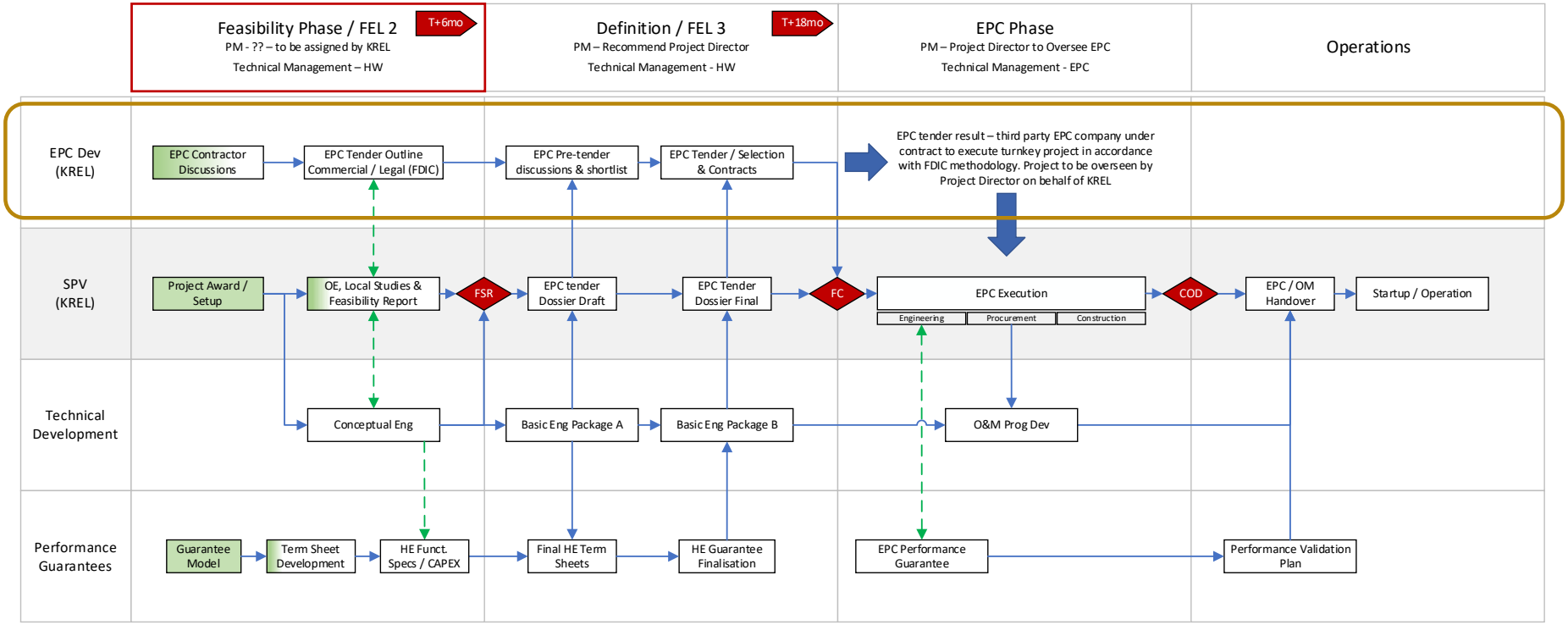
1. Technology Provider (HW) develops specific design requirements for the High Efficiency equipment during Feasibility Phase and early Definition phase
2. Parts of the design – including design guarantees - will be developed in more detail to allow suppliers to understand the principles and make them comfortable
3. HE suppliers now can provide (performance) guarantees to the EPC and O&M
4. With these guarantees covered, EPC and O&M can provide the overall security package to the SPV

Guarantee model



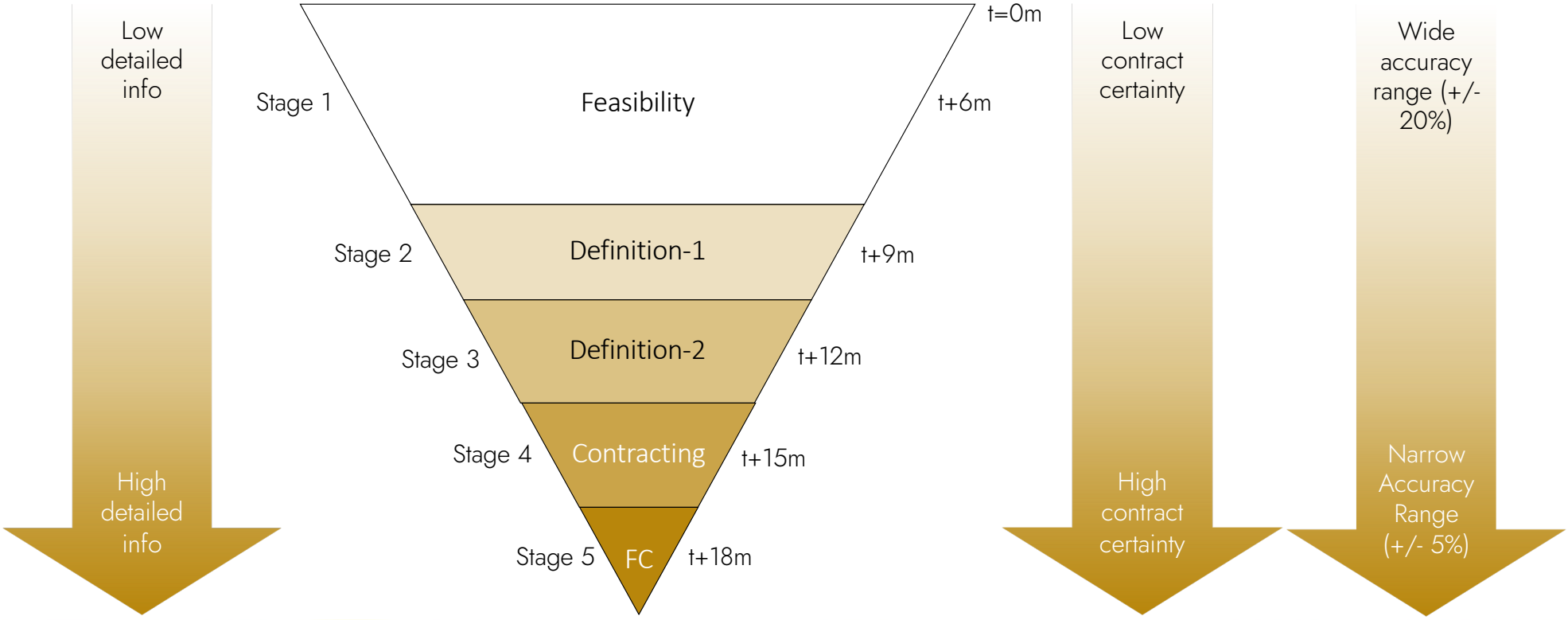
INTERACTION OF WORK STREAMS

Interactions with other workstreams during project development, inside and outside Harvest Waste



CONTRACTING STRATEGY - PHASING

'Funnelled' contracting approach, building information and confidence towards guarantees and price



CONTRACT & LEGAL PLAN

Develop bankable project contracts (PPA, waste, land), contracts with advisors/EPC, etc

Plan

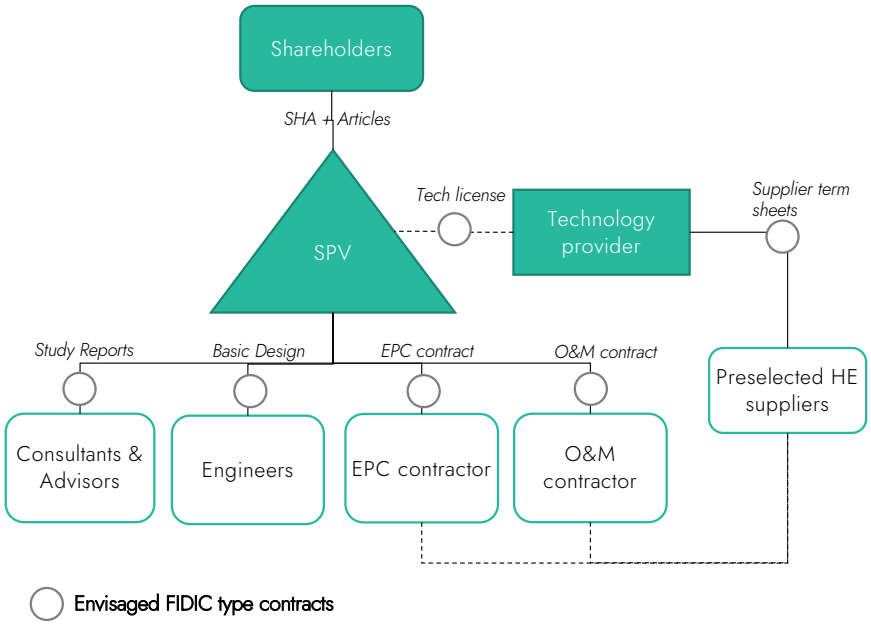
The SPV will hire a legal advisory firm that will assist the SPV with a range of activities during this phase: incorporation of the project company (SPV), any negotiations in relation to the site contract, PPA and waste concession.

At the end of this phase, the legal advisor can also assist in creating the tender documentation for the EPC and O&M, as well helping the SPV in establishing its contracting strategy with all the stakeholders.

All separate contracts - whose scope is in any way part of the projects' framework of performance guarantees - must be drawn up in accordance with FIDIC. Rationale

1. FIDIC is the international Industry standard
   - Good availability of advisors, legal counsels for FIDIC
   - Considerable amount of case law is available
2. FIDIC provides a clear contractual framework for all phases and types of services is available.
3. FIDIC contracts are balanced contracts. Hardly any changes were made from version 1999 -> 2017, showing a sound level of maturity.

Envisaged FIDIC type contracts



7

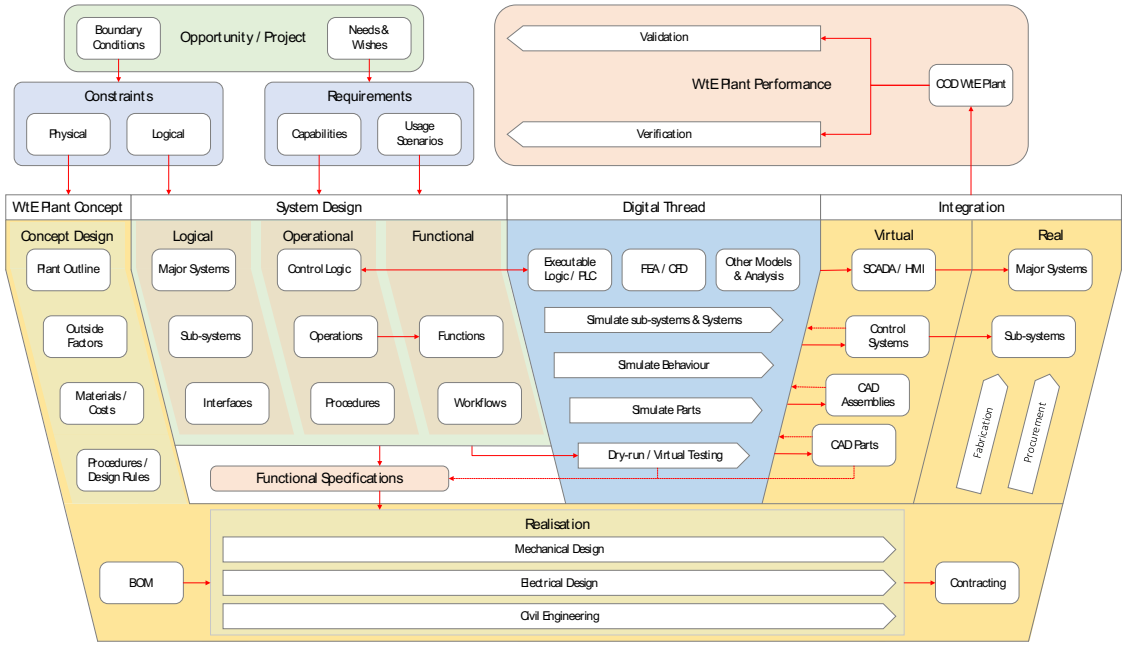
WP3 – Feasibility & Design

HARVEST WASTE

ENGINEERING STRATEGY 1/2

A modern systems engineering approach is used the for engineering and design HE WtE plant.

Systems engineering can be described as a structured, interdisciplinary development process for planning, designing, implementing, managing, operating, and retiring a system.



For the development of all design deliverables and to govern EPC phase, a robust and modern systems engineering methodology must be applied

Key aspects:

- Owner needs and required functionality are fully defined early in the development process.
- Detailed planning of the entire project lifecycle, including deployment and operation of the WtE Plant.
- Comprehensive engineering and design approach using decision gates to ensure quality and completeness when passing from one key phase to the next.
- Comprehensive documentation, configuration management and traceability

Minimum risk to budget, scope, and schedule

ENGINEERING STRATEGY 2/2

Systems Engineering Breakdown Approach

- Project Tech Proposal
- Conceptual and Basic Engineering Outline
- High Level Guarantee Framework

WtE Plant Technical Requirements

- ER's applicable for the total project
- ER's Waste feed Grate and boiler
- ER's Flue Gas Treatment
- ER's Steam water cycle and STG
- ER's Site Civil and E&I

Lot Level Breakdown

- Waste Feeding System
- Combustion Air System
- **Grate**
- Auxiliary Burner System
- Boiler
- SNCR System
- Ancillary Systems

System Level

Equipment / Sub-system Level Functionality and Interfaces:

- Physical (Mechanical, Electrical, Services)
- Control (Platform, I/O, Plant 4.0)
- Process Parameters
- Operations & Maintenance Plan

Equipment / Sub-system Level

HE Plant & Equipment Guarantees

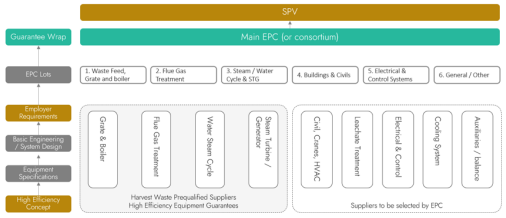
HE P&E (Plant Level)
- System Performance Demonstration / Validation
- O&M Philosophy – Utilisation
- Fuel Quality & Stability

HE P&E (System Level)
- System Functional Spec
- System Interface Specification
- System Performance Guarantee

HE P&E (System Level)
- Vendor Assessment (Technical)
- Due Diligence
- CAPEX Quotation (Design & Construction)

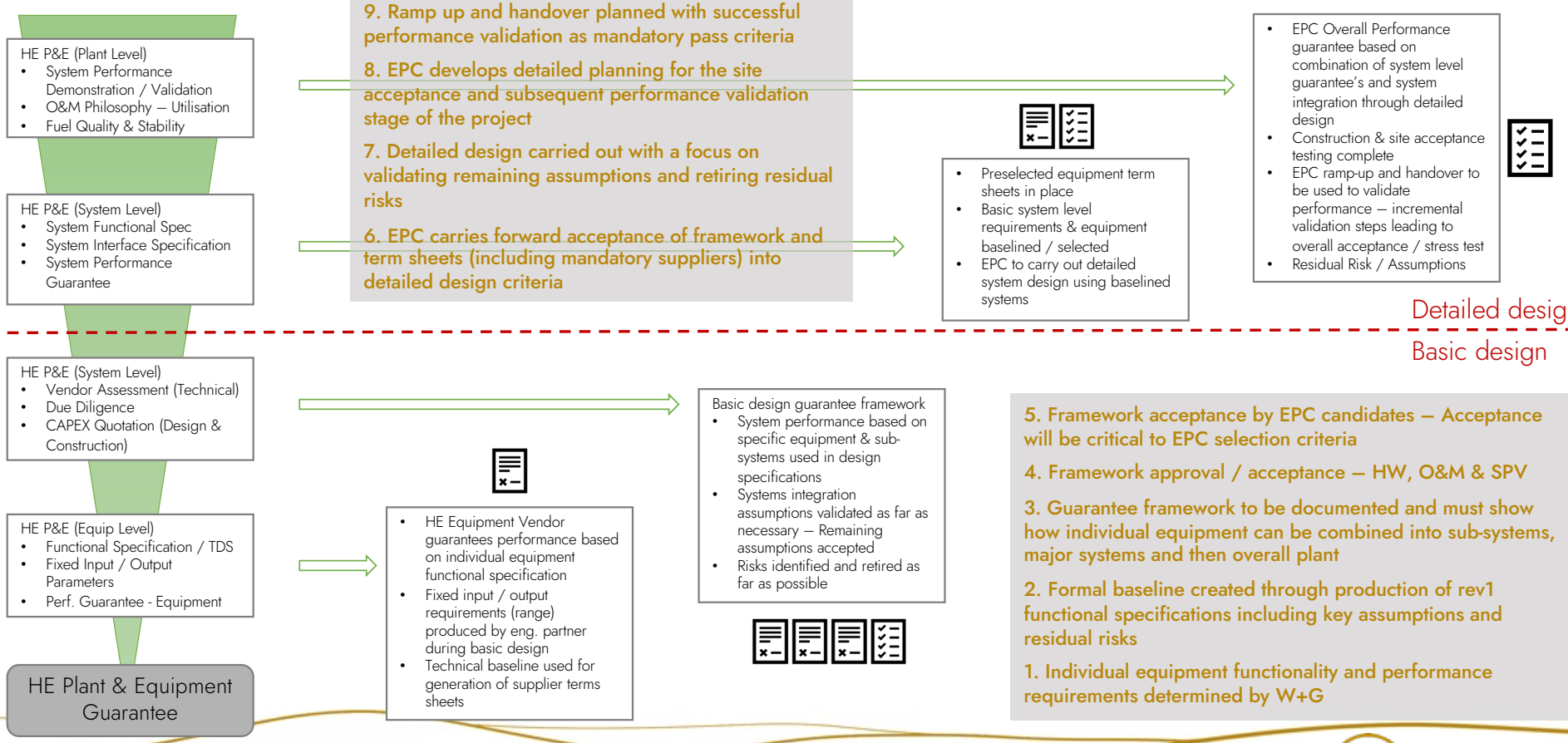
HE P&E (Equip Level)
- Functional Specification / TDS
- Fixed Input / Output Parameters
- Perf. Guarantee - Equipment

System breakdown & detailing to follow HW general lot structure for EPC and employer Requirements



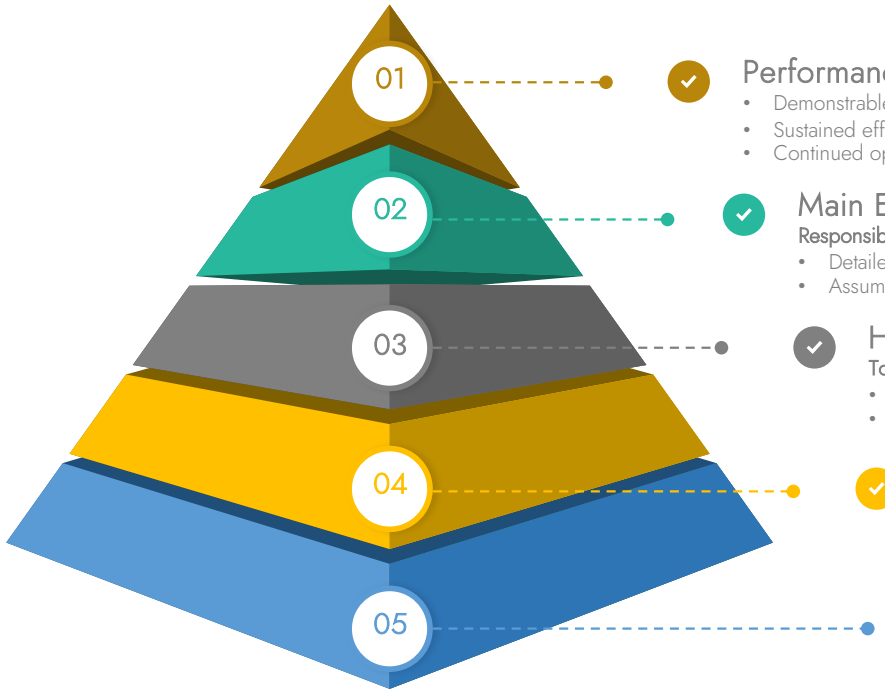
GUARANTEE STRATEGY 1/2

System Build-up Basic vs Detailed Design



GUARANTEE STRATEGY 2/2

Technical / Equipment Performance Guarantee Summary



Performance Guarantee

- Demonstrable performance and system robustness
- Sustained efficiency @ increasing capacity levels validated – Final performance guarantee at ≅ 28% efficiency
- Continued operation and stability @ increasing capacity levels validated – Final performance guarantee at 90% utilisation

Main EPC Contractor

Responsible for EPC incorporating pre-selected HE suppliers and overall performance requirements stated in employer requirements

- Detailed engineering based on proven concept and pre-selected suppliers that will enable the target performance requirements to be met
- Assume responsibility to 'wrap' HE equipment suppliers guarantee until COD + ramp up and warranty period

HE Equipment Suppliers

To be pre-selected, supplier will agree to specific terms of supply for equipment based on design basis and functional specifications

- Accept terms to guarantee quality of materials, workmanship as well as individual equipment output and efficiency
- Accept terms to guarantee long term equipment serviceability and output (assuming appropriate support / service contracts)

Conceptual & Basic Engineering

On behalf of HW, provide concept & basic engineering, functional specs and employer requirements for EPC tender

- Significant WtE plant design references (including AEB reference plant)
- Direct interface with HE equipment suppliers to produce detailed design basis and functional specifications

Harvest Waste HE WtE Plant Concept

Guarantee that the concept is achievable through robust design, operation and maintenance

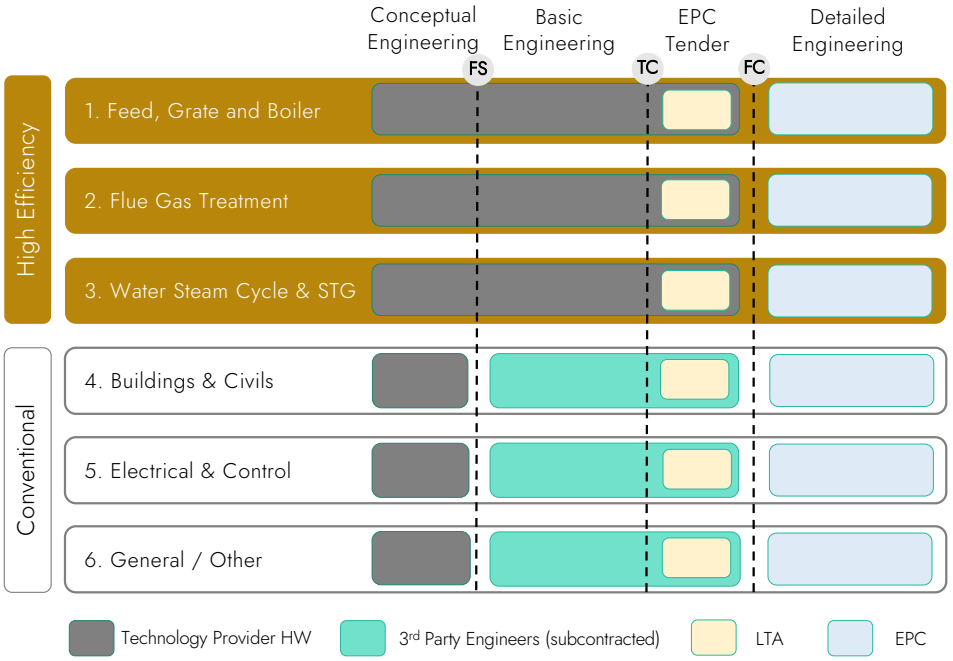
- Proven concept – AEB – 15 years in operation
- HW IP rights – HE elements
- HW technical & operational expertise & experience

TECHNICAL / PERFORMANCE GUARANTEE STRUCTURE

ENGINEERING & DESIGN PLAN

Design of High Efficiency parts will be executed by technology provider HW up to Financial Close

Parties involved vs engineering scope per phase



Plan & Criteria

Technology Provider Harvest Waste and subcontractor Wandschneider & Gutjahr

- develops the conceptual and basic engineering & design for the High Efficiency
- provides the latest technology for all key equipment.
- provide lessons learned from the Reference Plant in Amsterdam.

3rd party engineers will execute some parts of the design, as subcontractor to W&G or directly under the responsibility of the SPV (to be defined during development)

Lenders' Technical Advisor (**LTA**) performs a technical due diligence on the selected EPC proposal (BoQ, timelines, security package)

EPC will develop the detailed engineering; review by the SPV's 'owners' engineer'

Criteria

- The object breakdown structure (OBS) must form the basis of the elaboration of the engineering, tender documents and the EPC deliverables. This logical division of the plant will allow for clear demarcation of systems and expose clear interface requirements. This structure must be further broken down into sub-systems to capture detailed requirements and performance targets, essential to overall plant performance.
- The preferred engineering standard is either DIN or ASTM. At the start of the development, the best option must be defined. This can be based on suppliers' competences, preliminary quotations, etc.

8

WP4 – Permits & Stakeholders

HARVEST WASTE

STAKEHOLDER STRATEGY & PLAN

Identifies, analyses, and engages relevant external (public) stakeholders

Strategy & goals

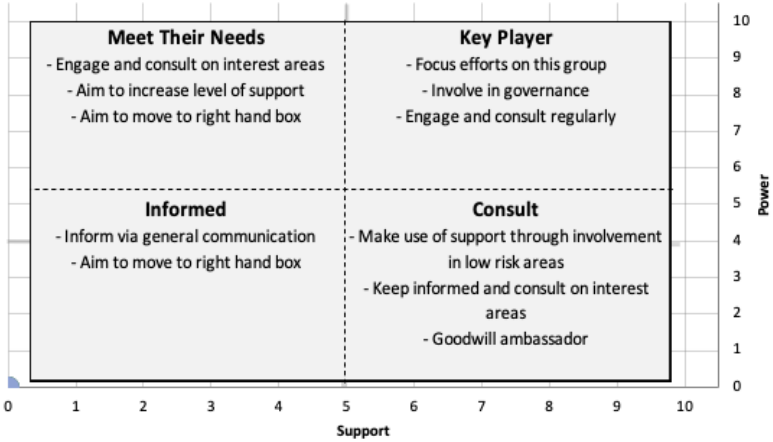
Strategy: Waste-to-Energy projects are generally highly impactful projects that require not only political support and involvement, but also engagement from a wide variety of other stakeholders (local residents, network operators, lobby groups, NGOs, etc). For the SPV, it is key to understand & manage these interests well.

Goals

- ensure that stakeholders are identified, analysed, and engaged in an appropriate way
- identify and manage information needs from the project towards stakeholders during next phases (EPC- + O&M-phase) and vice versa.

Plan & Procedure

Stakeholders must be identified at the start of each phase of project. Stakeholders will be classified by both power and support. This will lead to 4 stakeholder categories, with appropriate engagement strategies and communication needs. This includes consulting or co-creation with stakeholders who are the most effected by the project



The stakeholder register (template) must be reviewed frequently. Typical triggers:

- start of a new project phase
- changes in organizational structure (in- or outside the project)
- the importance of specific stakeholders to the project's success changes

PERMIT PLAN

Map and obtain all permits in time, needed for the project development

Strategy & Goals

Strategy: Knowing that

1. Obtaining permits requires in-depth knowledge of national and local procedures.
2. Obtaining permits requires a thourough understanding of how it works in practice.
3. Permits can become time critical. So a fast and clear understanding of which information is required to obtain permits, is key.

The strategy is therefore to select a good local consultant in the very first stage to list the necessary permits, requirements, estimated timelines and authorities involved. Local partners from the SPV must stay closely involved to solve potential issues.

Goal:

- Map and obtain all permits in time, needed for the project development
- Map all permits requirements for the EPC and O&M phase, as input for RFPs

Methods & Criteria

Whether the actual application for permits in the development phase is outsourced to a consultant or not, is up to the project team to decide.

The permit assessment will form the basis of the permit plan, hence it will define all requirements & timelines.

9

WP5 – Project Funding

HARVEST WASTE

FUNDING STRATEGY

Funding via a combination of private lenders and multilateral development banks (MDB)

Funding strategy options

In general, the following types of funding are used in infrastructure projects

1. Traditionally financed -> public sector financed
   - Small or medium size projects; loan to governments from International Financing Institutions, established in the target country
   - Large projects: financed directly by taxes, employers typically seek loan funding from Multilateral Development Banks (World Bank) or through grants.
2. Privately financed (e.g. Build (Own) Operate Transfer)
   - Developed and financed on a 'non-recourse' or 'limited recourse' basis
   - Substantial commercial company / consortium, with resources to finance the work directly, or able to apply for and obtain bank funding and/or raise equity capital
3. Public-Private Partnerships (PPP)

   For projects, not viable on a 'non-recourse' basis it will be necessary to raise other funds to supplement the private sector financing. Public funding or funding from MDB is added to the project.
4. Contractor financed

   The EPC company or consortium will arrange for the provision of finance, in return for the granting of a concession to operate the facility

Preferred strategy

Option 1 and 4 are not likely

The reality in our focus countries (=developing countries) is that governments do not have the funds itself to finance a Waste-to-Energy project (> USD 100m). Further, the option of a fully EPC-contractor financed project is unlikely. EPC contractors are not familiar with the HE-technology and EPC contractors will/can not bear the risk of non-performance.

The preferred strategy is thus to fund via a combination of private lenders and MBD

- With a proper income stream – potentially guaranteed - generated through the sale of electricity the project can attract financing from private lenders and development banks.
- Waste-to-Energy projects are not viable without governmental guaranteed, long term income streams for waste and electricity. In some cases, governments will ask the World Bank to back up its payment guarantees.

This strategy requires early involvement of development banks

FUNDING PLAN

Achieve financial close; the project is 'bankable' and financiers are willing to finance the project

Feasibility Phase plan

In general, financiers want to start spending time/resources on a project once the feasibility phase has been concluded. Hence, during the feasibility phase the team will primarily focus on preparation for the definition phase.

At the end of the feasibility phase, the following should be in place:

1. Select the firm that will act as the SPV's **financial advisor**
2. Develop a list of **financiers** the SPV wants to approach. MDB should be engaged in the earliest possible stage, because of
3. Develop a **planning** that shows financers how we get to financial close.
4. Selection **due diligence advisors**

Definition Phase plan

At the end of the definition phase the project will achieve financial close. The financiers have to get their credit committees comfortable with the risks that are involved in the project. For that purpose, they require in-depth due diligence (on technology, EPC, construction schedule and costs, all contracts and the financial model). For all of these areas, independent due diligence advisors have to be hired. To protect the interest of the SPV, all due diligence reports have to be analysed, and feedback provided to the advisors, before they are shared with financiers.

Roles & Responsibilities

Project Director is responsible for funding activities in the feasibility phase. The Project Director will hire a Contract Manager for execution and coordination in the next phase.

Financial advisor. The mandate of the financial advisor must be agreed by the SPV. A financial advisor could be responsible for all or parts of the following: financial model, raising debt funding, running due diligence work (DD) streams, coordinate communication with all DD advisors, lead negotiations with EPC and O&M parties, etc.

Financiers. It is highly likely that this WtE project will be financed by development banks and commercial banks. It is key that, during the feasibility phase, local financiers and development banks are contacted to understand what their appetite is and what is on their mind when being introduced to the project (e.g. risks).

Planning. The project management work package will deliver a planning that will be realistic to get EPC and O&M on board. Banks require an agreed term sheet with these parties before they start their in-depth due diligence. Assuming an agreed term sheet is t=0; the other elements of the bank process can be scheduled towards financial close.

Due diligence advisors. During the definition phase, the banks will require a range of due diligence reports as part of their credit approval. The SPV will need to select/hire these parties, a process that can take place during the feasibility phase. The following advisors needs to be in place: lenders technical advisor, lenders legal advisor, financial model auditor, accounting and tax advisor, insurance advisor.

A

Appendices

HARVEST WASTE

A1. TEMPLATE LIST

Template documents per work package

Work Package	No	Template name	Purpose
WP0-Project Management	T.WP0.1	Project reporting template	Inform project team & SPV Board about the project status
WP0-Project Management	T.WP0.2	Lessons learned log	Capture lessons learned for evaluation and future use
WP0-Project Management	T.WP0.3	Assumptions log	Capture and manage all assumptions made in the proposal phase
WP0-Project Management	T.WP0.4	Change request form	Capture nature and impacts of change request, input for decision and communication
WP0-Project Management	T.WP0.5	Job profiles for project roles	Recruitment of project team
WP0-Project Management	T.WP0.6	MS Projects schedule/budget	Manage projects' schedule and budget. If needed, resource mgt can be applied
WP1-Procurement	T.WP1.1	RFP for studies & design	Request for Proposals for procurement of 6 development studies and design
WP1-Procurement	T.WP1.2	Evaluation matrix	Excel model to evaluate advisors according to a predefined evaluation score-card
WP1-Procurement	T.WP1.3	EPC stage gate deliverables	List of deliverables to be developed per phase for selection of EPC
WP4-Permit&Stakeholders	T.WP4.1	Stakeholder register	Document to identify & map stakeholders' needs, power & support
[WP-Name]	T.WPX.X	[Template name]	[Template purpose]

A1 BUDGET BASELINE

Budget baseline version 007 for the development phase: 5m USD

Budget baseline to develop the project to financial close, approved by shareholders of the SPV in 2022

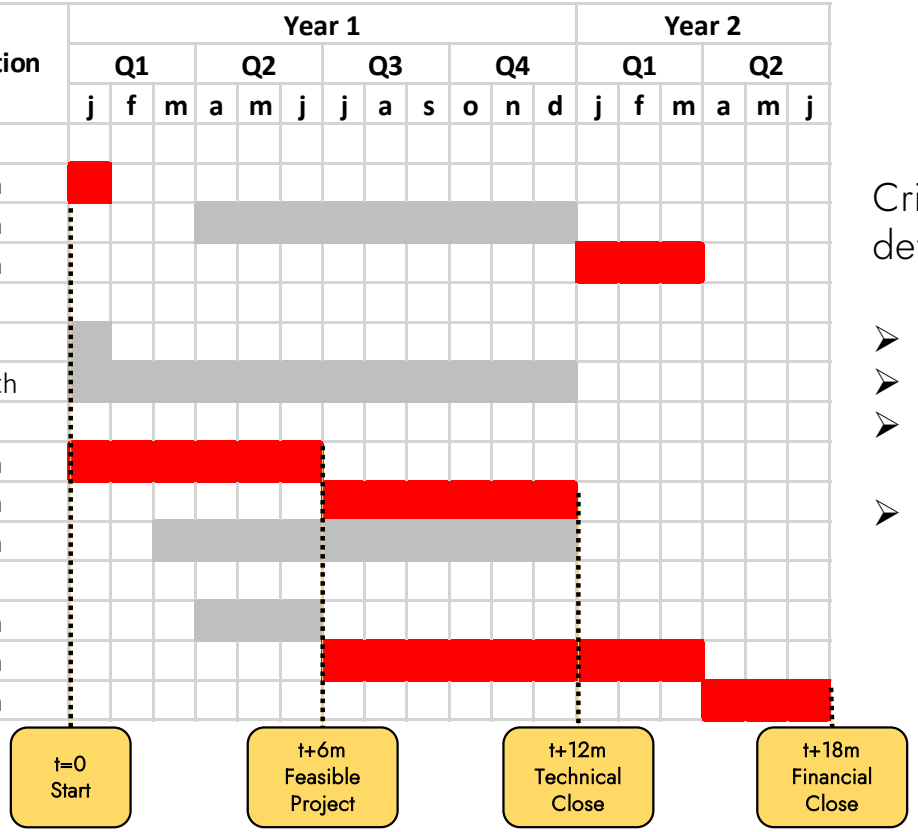
Work Package	Feasibility (USD)	Definition (USD)	Total (USD)
WP0-Project Management	390.000	1.455.000	1.845.000
WP1-Procurement	-	50.000	50.000
WP2-Contract & Legal	100.000	360.000	460.000
WP3-Feasibility & Design	615.000	1.050.000	1.665.000
WP4-Permits	0	125.000	125.000
WP5-Funding	0	530.000	530.000
Unforeseen	75.000	250.000	325.000
Total	**1.180.000**	**3.820.000**	**5.000.000**

- 75% is based on quotations, 25% based on best estimates
- Budget v007 was approved by shareholders of SPV in 2022
- Several ongoing insights provided a renewed budget v008 (5,1m USD)

A2 SCHEDULE BASELINE

Schedule Baseline for the development phase: 18 months

Critical path items	Duration
WP1-Procurement	
Consultants for feasibility studies	1 mth
EPC contract development	9 mth
EPC final selection	3 mth
WP2 - Contract & Legal	
Setup & funding of SVP	
Develop & negotiate PPA, Waste Concession, Land	12 mth
WP3 - Feasibilty & Design	
Feasibility Study	6 mth
Basic Design	6 mth
WP4-Permits and Public Relations	9 mth
WP5-Funding	
Preselect lenders	3 mth
Develop lenders agreement	9 mth
Finalize lenders contracts	3 mth



Project Milestones

Critical path is defined by

- Studies
- Design
- Contracting EPC and O&M
- Finalize funding agreements

A3.1 DRAFT DELIVERABLES WP0

Draft list of deliverables for project management

Deliverable	Explanation
Project Management Plan	Project Management Plan, approved by SPV
Gate Review Report	Report that provides the outcome of a gate review
EPC schedule	EPC phase planning, according to detail level 2 (feasibility phase) and level 3 (definition phase)
EPC cost	EPC costs, according to a AACE class 2 estimate for feasibility phase and AACE class 1 (for definition phase)
Project Dashboard	Representation of project performance to create awareness and generate decisions of actions. Minimum elements are Schedule & forecast, Cost & forecast, Risks & mitigation, Change Requests and status
Assumptions Log	Contains (status) information about key assumptions and constraints, affecting the project success and/or business case.
Change Requests	Changes of original scope can arise during the project and may impact the scope, budget, or schedule of the project.
Change Log	Used to record all submitted change requests during the project
Lessons Learned Log	Used to capture all submitted lessons learned during the project
Risk & Issue Register	Captures details and status of identified individual project risks and issues.
HSE analysis	High level HSE risk analysis, as input for Basic Design package
Project Scope	Actual description of the work required to achieve the project objectives, including approved change requests
Scope Baseline	Approved version of projects' scope and WBS.
Project budget	Actual project budget including cost forecast, based on budget baseline and development of project costs
Budget Baseline	Approved, approved version of the project budget
Project Schedule	Actual Gantt chart including critical path, milestones interlinked activities, based on latest estimates and progress of project activities
Schedule Baseline	Approved, approved version of a project schedule.

A3.2 DRAFT DELIVERABLES WP1 AND WP2

Draft list of deliverables for procurement and contract & legal

Deliverables WP1 - Procurement

Deliverable	Explanation
RFP	RFPs for services for project development. According to Harvest Waste template and SPV Terms and Conditions
Proposals	Firm proposals for studies, design, financial and legal advisors & other services for the next phase, ready to be signed
List of preselected companies	Combined list of preselected strategic companies for project development: Financial, Technical & Legal advisors, Suppliers equipment, EPC, O&M by PM
Draft term sheets EPC	Terms regarding scope, performance, price, security package.
Draft term sheet O&M	Terms regarding scope, performance, price, security package.
Draft term sheet with suppliers for HE WtE	Terms regarding scope, quality & performance guarantees for key equipment
Due dilligence reports	Due diligence reports on preselected companies

Deliverables WP2 – Contract & Legal

Deliverable	Explanation
Contracts for consultants and advisors services	Contracts for services in this phase; feasibility studies, engineering, legal advisors, etc.
SHA and articles for SPV	Local legal entity, established in target country, aligned with target county legislation. Including bank account
PPA	Draft terms for Power Purchase Agreement.
Waste Concession	Draft terms for Waste Concession
Site contract	Draft terms for contract for land lease, land ownership (or other bankable land contract).
Term sheets with preselected suppliers for HE	Term sheets in which agreements are made with selected suppliers for the High Efficiency equipment. Term sheet must cover guarantees, CAPEX, delivery times, IP, etc)
Preselected legal advisors	Preselected legal advisors with a credible and bankable track record
[Equity Subscription Agreement]	[TBD]
[Loan Agreement]	[TBD]
[Financing Term Sheet]	[TBD]
[Legal Opinion]	[TBD]
[Conditions precedent]	[TBD]

A3.3 DRAFT DELIVERABLES WP3 AND WP4

Draft list of deliverables for feasibility & design and permits & stakeholders

Deliverables WP3 – Feasibility & Design

Deliverable	Description
Grid Study Report	Analysis what impact the project will have on the local grid, possibility to connect to the grid, etc.
Geotechnical & Topographic Report	Analysis and report on soil conditions, climate, access, interfaces
Waste Characterization Study Report	Analysis and report on the quality and composition of the waste.
Waste Management Study Report	Assessment of future developments and expected future waste composition.
Lead times for key equipment	Lead times for procurement of critical equipment
Conceptual design	Conceptual Design of the WtE plant (plot plan, process flow diagram, plant main configuration and calculations, etc
Feasibility Study Report	Comprehensive report with results and conclusions of all studies, stating technical Feasibility
Emission model	Model of emissions during O&M phase
Preliminary results of ESIA	Preliminary results of the full EIA outcome. First results of the impact assessment
Basic Design	Design deliverables / functional specifications, in order for EPC and O&M to provide a quotation, according to RFP

Deliverables WP4 – Permits & Stakeholders

Deliverable	Description
Stakeholder register	Analysis of all projects' stakeholders defining their level of support, power and potential management strategies.
Permit analysis	List of permits needed. List includes requirements, timelines, governmental agencies, etc, etc
Permit impact assessment	Analysis of all applicable permits to develop the project, including timelines and requirements to obtain them. Impact on project baselines and other (future) work packages
Permit plan	Plan of approach, based on the permit analysis.
Permits	All permits and licenses, needed for the EPC and O&M phase of the project
RFP input permit requirements	Input for the EPC/OM RFP with all information requirements, based on permit conditions

A3.4 DRAFT DELIVERABLES WP5

Deliverables for project funding

Deliverable	Description
Insurance analysis	Analysis of insurances needed to get a bankable outcome
Financial Model (updated)	According to template Harvest Waste
Databook	List of assumptions, stating how estimates for costs were derived, to be used to calculate the impact of changes
List of preselected financial advisors	Preselected financial advisors with a credible and bankable track record
List of preselected lenders	Preselected lenders to invest at FC
Cost Estimates (CAPEX and OPEX)	TBD
Financing Structure	TBD
Security Package	TBD
Subsidy	TBD
Fund Raising Plan	TBD
Insurances	TBD

HARVEST WASTE

URBAN CLEANUP & ENERGY

Follow us on in

HARVEST
WASTE