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A River of Energy Solutions

Session 4 Project Identification: Let's Get Started

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Project Identification Steps

- Organizational Support
- Federal Mandates
- Project Planning
- Stakeholder Participation
- Project Goals
- Project Financials
- Project Schedule
- Collaboration of the Project Development

What makes a successful ESPC/UESC project?



Organizational Commitment

- Identified need that leadership is committed to utilizing performance contracting as a solution.
- Needs Examples;
 - Inadequate funding to repair/replace aging infrastructure
 - EPACT compliance
 - Reduce Energy Intensity 20% by year 2015 from 2003 baseline at a minimum rate of 2%/year
 - Renewable energy 3% of electricity use in 2007-2009, 5% 2010-2012, and 7.5% 2013
 - EO 13423 compliance
 - Reduce Energy Intensity 30% by year 2015 from 2005 baseline at a minimum rate of 3%/year.
 - Reduce Water Consumption Intensity by year 2015 16% from 2005 baseline as measured by gallons/square foot
 - EISA
 - Reduce Energy Intensity 30% by year 2015 from 2008 baseline at a minimum rate of 3%/year.
 - President Obama Executive Order to reduce Greenhouse gases

Project Program

Scope

Budget



Expectations

Schedule

- Collaborative communication tool for defining, managing & controlling project boundaries.
- Document created and refined throughout development of a project.
- Central location for all project requirements such as;
 - Project Goals, Objectives, Priorities, Financial Constraints, Schedule Constraints
 - Applicable Codes/Permits/Authorities Having Jurisdiction
 - Applicable utility incentives
 - Utility rate structures
 - Construction Phasing Plan
 - Key Operating Strategies

Stakeholder Participation & Commitment

- **Who**
 - Financial Leadership
 - Projects Leadership
 - Energy, Engineering, & Master Planning Leadership
 - Facilities Operations & Maintenance Leadership
- **When**
 - Early
 - Often at multiple milestones throughout the development process
- **Why**
 - Develop and maintain support for project and its final approval.



Clear Goals & Objectives

- Define desired results such as;
 - Reduce energy use by XX% and achieve Energy Star Rating
 - Generate sufficient savings to fund particular scope item(s)
 - Project substantially complete by a particular date
- Define scope items that are must haves and prioritize/rank order
- Define scope items that are wish list and prioritize/rank order

Clear Financial & Schedule Constraints

- **Financial**

- Agency's debt parameters for project
 - Maximum amount of debt that can be incurred
 - Self funding within a particular time frame such as;
 - Economic useful life of installed equipment
 - 15, 20 or 25 years
- Capital available for buy-down of amount to be financed via savings
- Parameters for maintenance savings
- Parameters for deferred maintenance savings
- Appetite for Power Purchase Agreements (PPA)

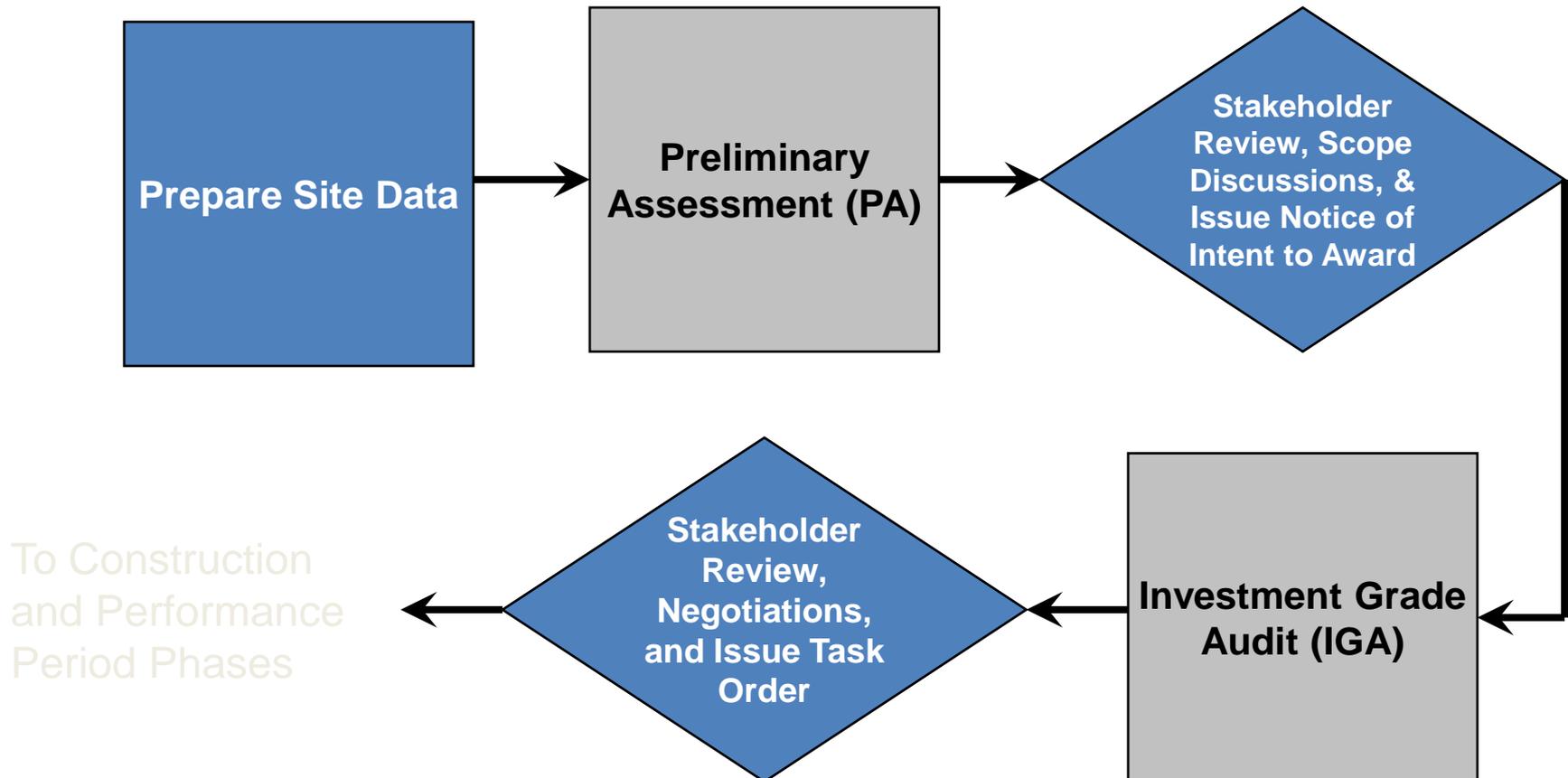
- **Schedule**

- Project Reviewer(s)/Approver(s) and associated review cycle times
- Desired construction time frame(s)
- Dates associated with requirements for obtaining funding

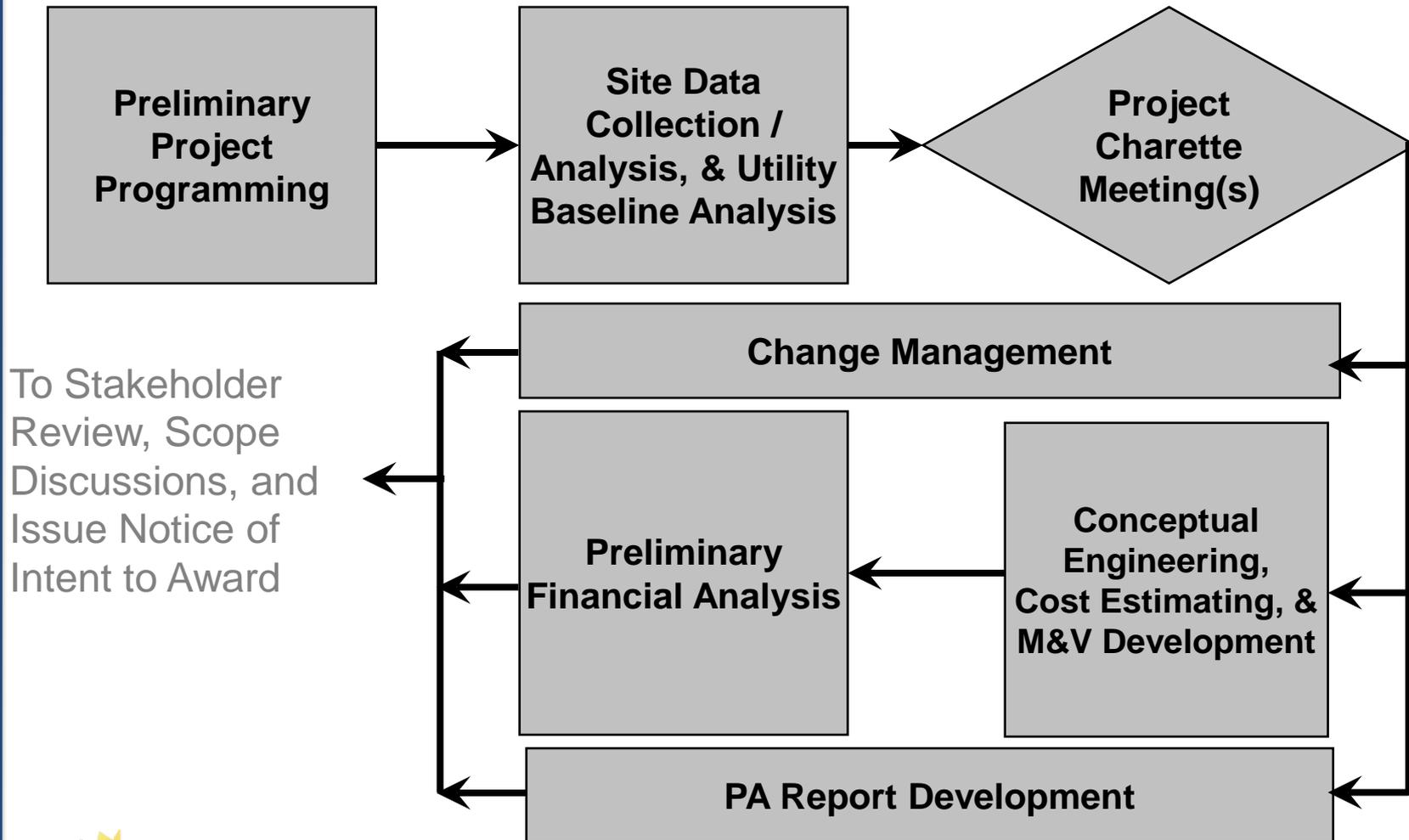
Complete & Accurate Site Data

- **Utility data**
 - Utility meter list
 - Utility site map(s)
 - 26 months of utility bills for each utility meter - Hard copies utility bills important as data in spreadsheet will often not break down utility bill into charges for each individual component of the rate structure.
- **Building Data**
 - Square footage, Fire escape plans, & Equipment lists
 - Building Operating Plans
 - HAZMAT Survey(s)
- **As-built documentation**
 - Architectural Drawings, Mechanical/Electrical/Plumbing Drawings, Controls Drawings
- **Goals & Objectives**
- **Financial & Schedule Constraints**

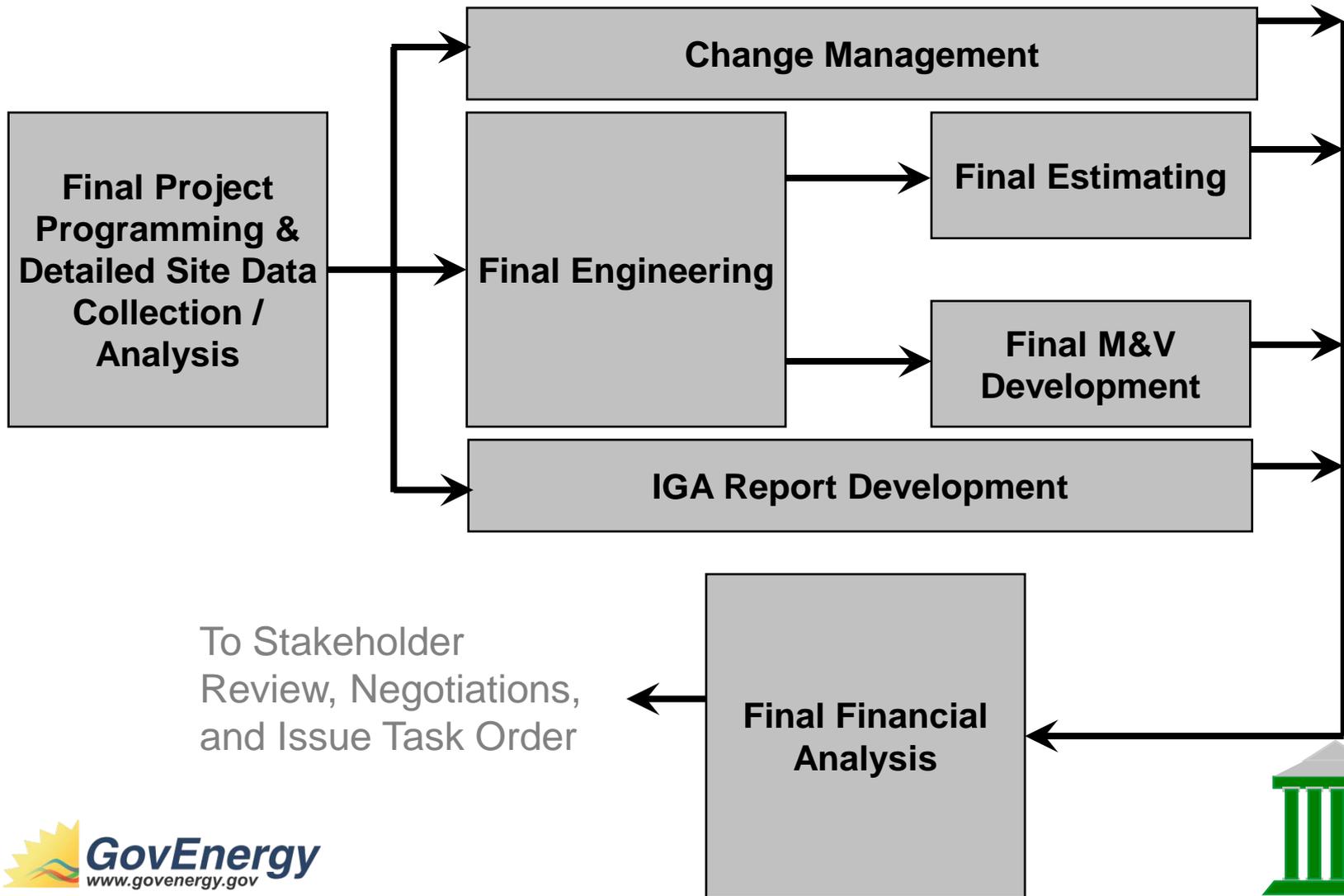
Collaborative & Methodical Development Process *Summary*



Collaborative & Methodical Development Process *Preliminary Assessment*



Collaborative & Methodical Development Process *Investment Grade Audit (IGA)*



Professional Project/Construction Management

- Multiple intermediate project milestones established
 - Dates definitive
 - Deliverables clearly defined
 - \$ values clearly defined
- Communication and transparency
 - Accurate and timely meeting minutes
 - Accurate and timely project schedule updates
 - RFI/Issue log(s)
 - Change Order log(s)
 - Reasonable progress payment requests against project schedule of values
- Project Program utilized as tool for change management

Final Project Outcome





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