



Washington State Department of Transportation

Cost Risk Estimating and Management Subject Matter Expert Services

Cost Risk Estimating and Management (CREM) is a program created and developed to better estimate the transportation projects. The CREM program provides the work frame for two comparable processes “Cost Estimating Validation Process” (CEVP) and “Cost Risk Assessment” (CRA.) These processes involve intensive workshops where transportation projects are examined by teams of top engineers and risk managers from local and national private firms and public agencies (External Subject Matter Experts) from WSDOT departments and offices (Internal Subject Matter Expert) and the Project Team members.

The External or Internal Subject Matter Expert participates in **peer-level** systematic project review and risk assessment to identify and describe cost and schedule risks based on the information at hand. The review process examines how risks can be lowered and the project cost and schedule vulnerability can be reduced.

The Subject Matter Expert should have extensive expertise in his/her specialty area. In addition to the technical expertise the SME is expected to provide guidance and assistance on defining the cost and schedule of the projects activities related to his/her expertise. While the SMEs should focus on their area of expertise it is expected that the SMEs should provide their input on one or more of the following risk categories: Management; Environmental; Third Party; Design; Construction; Operation & Maintenance and Safety.

The SME should understand that Risk Management could require a negative frame of mind but once identified, risks should be managed positively, so that the risks are addressed in the best possible way to minimize their influence on a project.

The SME should understand that Risk Assessment does not need to be exact to be useful particularly during the early stage of a project. Risks and opportunities go hand in hand and their analysis should have equal consideration.

Much of the power of CEVP and CRA workshops lies in the rigorous disciplined approach and the ability of team members to focus collectively, both inwardly and outwardly on a broad range of topics.

- The SME should provide leadership in his/her field and cooperate with all team members by crossing conventional boundaries.

- The SME should have an open attitude to change by encouraging team and individuals' creative thinking.
- The SME should stay aligned to the workshop process and focus on fulfilling the ultimate workshop mission; projects delivered on time and on budget.
- The SME should be familiar with the content of the Common Assumptions pamphlet.
- The SME should have a clear understanding of the specific terminology used during workshops such as: allowances, contingency, base cost, cost uncertainty and schedule uncertainty, risk and opportunity factors and etc.

Besides of an active participation to the workshops the SME may be asked to provide documentation of the viability of assumptions made regarding the project's configuration, scope, schedule, cost estimate, and the potential impact of risk events that may occur.

The SME may be asked to participate in a follow-up or rerun session as requested; and provide reports and/or presentations documenting their work.

The SMEs and the Project Team members would strive to produce a clear and concise product (CEVP or CRA report) that would help the decision maker in taking inform and defensible decision.