

Resources Required for Professional Services Panel: CLUSTER B

CLUSTER B Resource No.	TP and WP Reference No.	Resource Description	Role Activity Description, in terms of expertise
B.2.5	3.1, 3.2, 3.3	Water Resilience Advisory Expert – Natural Scientist	Note B5
B.2.6	4.3	Climate Change Advisory Expert	Note B6
B.2.7	4.2	Catchment Management Advisory Expert	Note B7
B.2.8	4.1	WWTW Process Engineering Expert	Note B8
B.2.9	3.1, 3.2, 4.1	Contaminants of Emerging Concern (CECs) Advisory Expert	Note B9
B.2.10	3.3	Regional System Integration Expert	Note B10

The following requirements are applicable to Cluster B service providers:

Note B1: Programme Manager: The required personnel to fulfil the role of Programme Manager's must be professionally registered as a PMP or another proven equivalent registration **with relevant qualification in Engineering or Science field**, with transversal programme management experience relevant to Cluster B's specification (**Note B2 to B10**). The consultant's technical expertise and experience must be relevant to the specification (**Note B2 to B10**) in order to provide advice at a level of specialisation where such advice is recognised as that of an expert who has previously worked with a technical specification of a similar scope as specified for Cluster B, as set out further on. International experience is preferable.

Note B2: Energy Advisory Expert: The required personnel must have an electrical or mechanical engineering degree and must be professional registered Pr. Tech Eng. or Pr. Eng. (Elec) and must ideally be certified with SAEE/CEM/AEE or a similar internationally-recognised institute. Verifiable postgraduate experience in the design of energy optimization systems incorporating new technologies. International experience is preferable. The personnel must have experience in (1) calculating/ determining of major scheme energy requirements. (2) Applicable energy tariff model calculations determination. (3) Develop future energy requirements strategy for Water and Sanitation schemes.

Note B3: Water Resilience Advisory Expert – Engineering (Water Resources): The required personnel must preferably hold a post-graduate degree and be registered as a Pr. Tech Eng. or Pr. Eng. with ECSA. Experience in preparing integrated water resources management and development plans, strategies and action plans. This will include verifiable experience in the water resource field, specifically focussed on complex system modelling (For example DWS's WRPM, WRYM or MIKE Suite, or similar). Experience must demonstrate projects with similar to the scope of works and scale, and include projects aspiring to water sensitivity. It is required that the personnel with adequate experience to undertake and manage water resource feasibility studies of this nature. International experience is preferable.

Note B4: Water Resilience Advisory Expert – Engineering (Urban Water): The required personnel must hold a preferably post-graduate degree and be registered as a Pr. Tech Eng. or Pr. Eng. with ECSA. Experience in preparing development plans, strategies and action plans incorporating the urban water cycle at a metro level in urban environments. This will include verifiable experience network modelling (e.g. EPAnet and SWMM or any derivative of these packages), preparation of flood lines, storm water masterplans etc. Experience must demonstrate projects with similar scope of works and scale, and include projects aspiring to water sensitivity. It is required that the personnel with adequate experience undertake and manage water resource feasibility studies of this nature. International experience is preferable.

Note B5: Water Resilience Advisory Expert – Natural Scientist: The required personnel must preferably hold a post-graduate degree and be a professionally registered Natural Scientist. Experience in preparing integrated water resources management and development plans, strategies and action plans. This will include verifiable experience in the water resource field, specifically focussed on large catchment hydrological modelling,