ICE-SANEC Forum 2 Including Jam Session 2

Thursday 14th March 2024 4 pm - 5:30 pm





ConsulTauri Design (Pty) Ltd

CONSULTING CIVIL AND STRUCTURAL ENGINEERS



Improving SA Infrastructure using NEC Contracts as intended

NEC Jam Session 2

CPD Accredited

- Presented by Mile Sofijanic from ICE-SA NEC sub-committee

TOPIC: - Procurement & Contracts, Parties & Role Players, Getting the best out of the NEC contract

10 NEC Jam Sessions ice-sa Topics

Session 1

Introduction to the NEC3 family of contracts; How it came about, what it tries to do and how it is used; Synopsis of each of the 12 contracts in the family.

Session 2

Procurement & contract strategies; Parties and role players; Getting the best out of the NEC contract - change of the culture.

Session 3

Introduction to the sections of Core Clauses & actions in ECC3, Section 1 – General.

Session 4 Section 2 - Contractor's main responsibilities, Section 3 – Time.

Session 5 Section 4 - Testing & Defects (Quality), Risk Management.

Session 6

Alignment between contracting parties, Diversity and Inclusion.

Session 7

Section 5 - Payment, Cost and the Options, Section 6 - Change management through compensation.

Session 8

Section 7 - Title, Section 8 - Liabilities and insurance, Section 9 - Termination, Disputes and Adjudication.

Session 9 Pre-award documentation & Developing a contract.

Session 10 NEC3 and NEC4 – the differences.

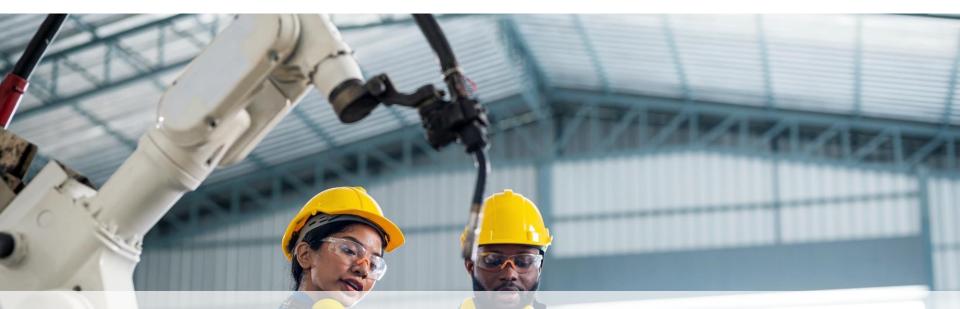


Objectives of ice-sa 10 NEC Jam Sessions

- Delegates should leave with
 - an understanding of the NEC philosophy, its associated culture change and how it contributes to the effective management of a project;
 - a basic understanding of how to prepare, tender to, and administer the ECC3 (Engineering and Construction Contract)



Introduction to ECS ice-sa



Collaborative Project Strategies©

ECS Associates Empowered Contract and Project Management Services







4

Facts and Values



A leading, fully-empowered organisation. 35% black woman owned. BBBEE Level1

3 decades of experience in South Africa and overseas

Delivery of international best practice professional contract and project management services from front end studies to implementation

Business solutions through a combination of expert knowledge and hands on experience

Drive clients' success through collaborative, mutually beneficial contract and business management practices Collaborative Project Strategies© Agile Project Delivery

Our Founder Andrew Baird was a key member of the drafting committee for NEC 1, 2 & 3

Our associate Peter Higgins is chairman of the drafting committee for NEC4

Network based business model – low overhead cost (current staff 100+, network 1000+)



Integrity

Professionalism

Collaboration

Courage

Reflection on the previous session



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NEC objectives

- Flexibility
- Clarity and simplicity
- Stimulus to good management
 - The most important objective; every procedure is designed to contribute to rather than detract from the effectiveness for all parties
 - foresight applied collaboratively mitigates problems and shrinks risk
 - clear division of function and responsibility helps accountability and motivates people



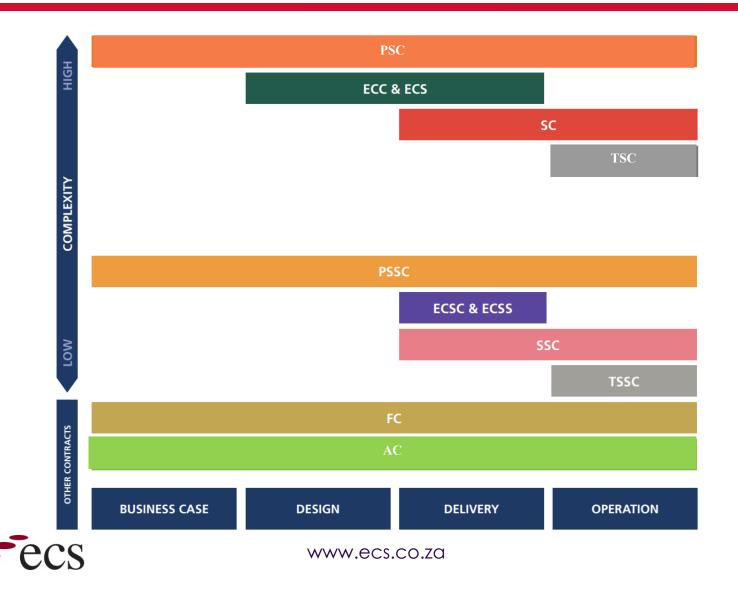
ICE-Sa

ice-sa Stimulus to good management

- Done by introducing Project Management into contractual relationships; minimum legalese
 - Single point accountability
 - Apply planning and cost management tools
- Forecast not react to events
- Give risk to party best able to manage it
- Result: Manage TIME / COST / QUALITY



Contracts in NEC3 family ^{ice-sa}



NEC Jam session 2

- Procurement & contract strategies; Parties and role players;
- Getting the best out of the NEC contract change of the culture

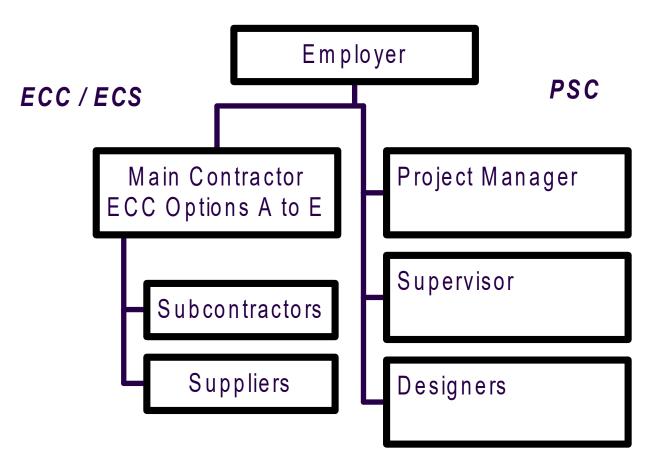


Procurement Strategies

- How to split project in smaller components if required?
- Who does Engineering, Procurement and Construction?
- Who is managing interfaces?









TAR

ice-sa Early contractor involvement

- Bring contractor on board early by process of competitive selection
- Assist with finalization of design and clause 31.2 programme
- Review all design work for constructability
 - See potential savings
 - Switch from Options A or B to C or D?

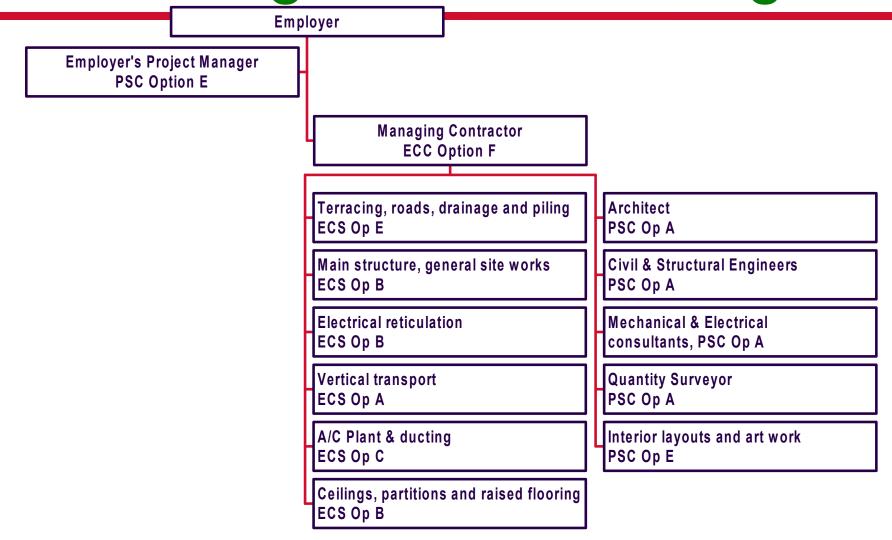


ice-sa Combination of Construction & EPCM

Emp	bloyer
Construction Manager PSC Op E	
Terracing, roads, drainage and piling	Architect
ECC Op E	PSC Op A
Main structure, general site works and wet trades	Civil & Structural Engineers
ECC Op B	PSC Op A
Electrical reticulation ECC Op B	Mechanical & Electrical consultants PSC Op A
Vertical transport	Quantity Surveyor
ECC Op A	-PSC Op A
A/C Plant & ducting	Interior layouts and art work
ECC Op C	PSC Op E
Ceilings, partitions and raised flooring ECC Op B	

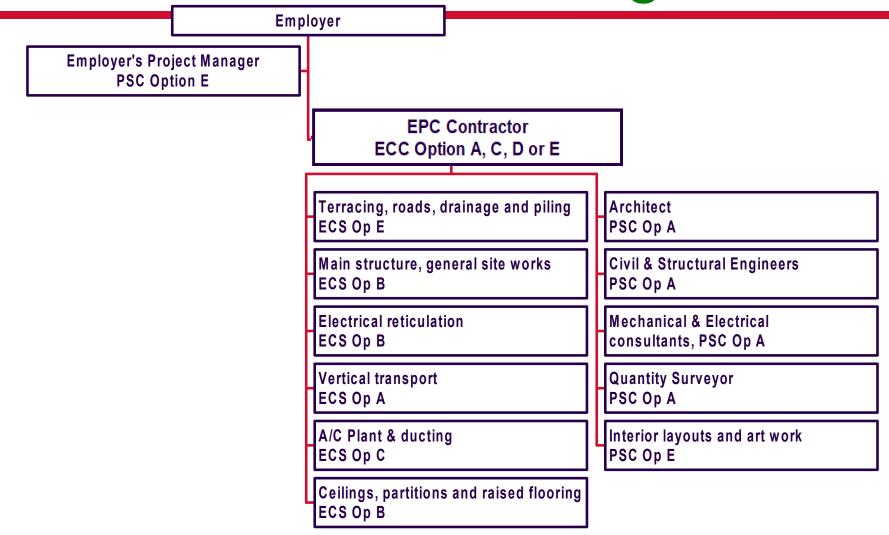


ICE-Sa Management contracting





EPC contracting





Contract Strategies

Allocation of risk and incentive Choosing the right Options (Main and Secondary Options)



Sections in Core Clauses of ice-sa NEC3 contracts (excluding AC3 and FC3)

- 1. General
- 2. The Contractor's (Parties') main responsibilities
- 3. Time
- 4. Testing and Defects (Quality)
- 5. Payment

- 6. Compensation events
- 7. Title (Rights)
- 8. Risks and insurance; liability & indemnity
- 9. Termination

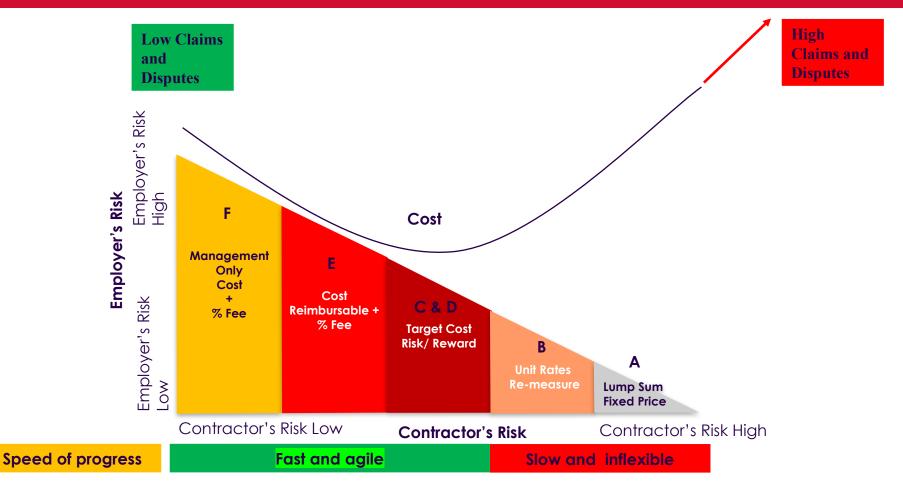


Contracting strategies^{ice-sa}

- Option A: Priced contract with Activity Schedule
 - Paid tendered price of each activity when completed
- Option B Priced contract with Bill of Quantities
 - Paid for quantities of work done at tendered rates
 - Ideally not a provisional bill; must be representative of final work to be done
- Options C and D Target cost contracts
 - Paid Defined Cost; Compare final cost with tendered target & share over/under-run
- Options E and F Cost reimbursable contracts
 - Paid Defined Cost plus tendered fee %
- Option G Term Contract in PSC3 only



Project Risks and Types of ice-sa Contract





Contracting strategies^{ice-sa}

Secondary Options

X1 to X20 (options X8 to X11 and X19 are not used)

Z clauses (they could be introduced to add new or change standard clauses)

Dispute resolution W1 always used in South Africa



The Parties & their Agents

Who is in the saddle?



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Agents of the Parties

- ECC3, TSC3 and SC3 use an agent named in the Contract Data
 - ECC3 has two agents, Project Manager and Supervisor
- PSC3 uses an agent if secondary Option X10 is selected
- No named agents in the short contracts but main party can delegate to one
- No agents in the subcontracts



ICE-SA

ice-sa Roles and responsibilities

- Agents have considerable authority
- Role defined by the actions which the contract says they take
- Act on behalf of the employing party
 - Assumed they are not constrained
- May delegate their actions; not advised
- Motivated to act reasonably by presence of the Adjudicator



Adjudicator

- Appointed jointly by Parties when forming contract
- Party 1 proposes in enquiry
- Party 2 accepts or proposes other
- Only used when dispute arises
- Fees paid 50/50 by Parties
- Must be impartial and VERY knowledgeable of NEC contracts



NEC3 Contracts Summary

Contract	Core Clauses	Main Options	Dispute Resolution	Secondary Options	Schedule of Cost Compon.	Contract Data	Agent
ECC	9	A,B,C,D,E,F	W1	X1-X20 Z	SCC SSCC	2	PM Supervisor
PSC	9	A,C,E,G	W1	15 X options additional Z options	N/A	2	X10
SC	9	N/A	W1	10 X options additional Z options	N/A	2	Supply Manager
TSC	9	A,C,E	W1	10 X options additional Z options	N/A	2	Service Manager
FC	4	N/A	N/A	N/A	N/A	2	N/A
AC	4	N/A	N/A	N/A	N/A	1	N/A



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- Successful use of NEC depends on
 - Aligning the interests of the Parties
 - Foresighted, co-operation between the Parties
 - Proactive behaviour
 - Direct effort towards the future
- NEC provides financial incentives to cooperate



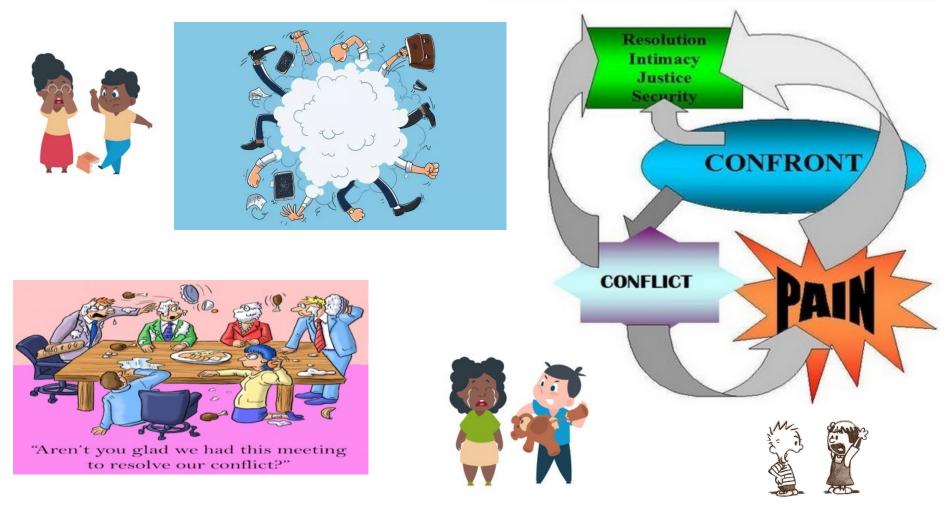
ice-sa Getting the best out of NEC

- The Parties from top management down

 and their agents MUST be prepared to
 enter spirit of NEC's drive for change and
 be driven by its better standards of
 management by all
- Start off with a traditional adversarial "provisional bill of quantities" approach and the outcome could be a disaster



Confrontation...





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- NEC says it is too late to intervene once things have gone wrong
- NEC procedures are designed to motivate the parties to work together as a team to shrink risk and plan ahead
- Control and the exercise of choices are only possible over what has not yet been done. It is not possible to control that which has already been done; only the consequences can be managed



Change of mindset

NECiticindlset

- Allocate risk to pady bdy table to manage it
- Gponedistriation and a state of the sta
- Redyctivegringroblems
- Remobelingepetogness



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Towards Partnering

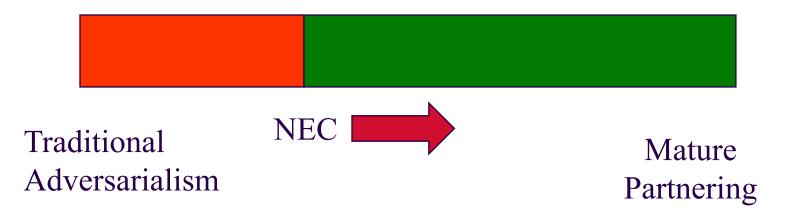
- Early Contractor Involvement
- Co-operative long term relationships between separate firms
- Mutual objectives, decision systems and continuous improvement
- Keep project teams together; fewer management decisions needed



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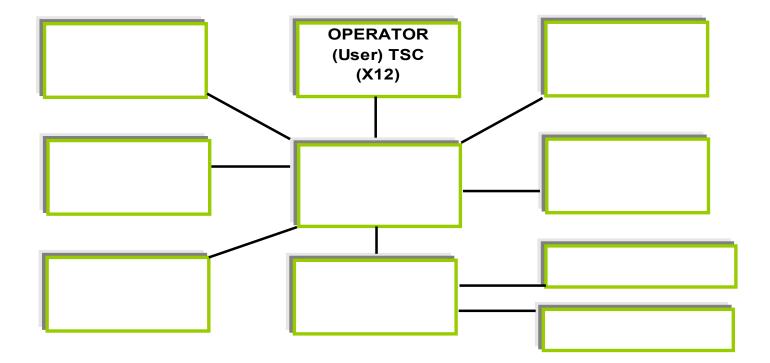
ice-sa NEC is the route to partnering

Moving industry culture





ice-sa Project partnering in NEC with X12



A Partnering Option (X12) is used in each Own Contract



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ICE-Sa Total procurement activity

- Each of these four key issues has an effect on the other
 - Procurement strategy; planning for risk allocation
 - Contract strategy and development; what the contract should say; its quality and completeness
 - People skills; no such thing as an unsophisticated contract
 - Contract management; <u>Read the Contract</u>
- The weakest link could cause a disaster



ice-sa Lessons Learned No.3



You cannot have too many friends...

If we fight with project challenges, can we afford to fight with people around us?

Listen and talk to people. Respect and engage. Everyone has something to contribute.



The end of NEC Jam Session 2





ice-sa Next NEC Jam Session

Session 3

- Introduction to the sections of Core Clause & actions in ECC3,
- Section 1 General.



Thank you for your participation

Feedback is welcome <u>communication@ice-sa.org.za</u> <u>admin@ecs.co.za</u>



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